

Self-Study Report – PART II
Department Evaluative Reports – Pilani Campus

Submitted for Re-accreditation
To
The National Assessment & Accreditation Council
Bangalore



BITS Pilani
Pilani | Dubai | Goa | Hyderabad

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE,
PILANI. RAJASTHAN

November 2015

BITS PILANI – PILANI CAMPUS

EVALUATIVE REPORT OF THE DEPARTMENT

Table of Contents

BIOLOGY.....	3
CHEMICAL ENGINEERING.....	54
CHEMISTRY.....	101
CIVIL ENGINEERING.....	157
COMPUTER SCIENCE AND INFORMATION SYSTEMS	211
ECONOMICS AND FINANCE.....	248
ELECTRICAL AND ELECTRONICS ENGINEERING.....	269
HUMANITIES AND SOCIAL SCIENCES	300
MANAGEMENT.....	346
MATHEMATICS.....	383
MECHANICAL ENGINEERING	431
PHYSICS	479
PHARMACY.....	521

Pilani Campus: Evaluative Report of the Department BIOLOGY

1. **Name of the Department :** Biological Sciences, Pilani Campus
2. **Year of establishment of the Department:**1964
3. **Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc. D.Litt., etc.).**
 - **Integrated Masters:** M.Sc (Hons) Biological Sciences,
 - **PG:** M.E.Biotechnology and
 - Ph.D.
5. **Interdisciplinary programmes and departments involved:** Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc:**
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons:** Masters in Public Health (MPH), Unavailability of the faculty members
8. **Examination System:** Semester system and Choice based Credit system.
9. **Participation of the department in the courses offered by other departments:**
 - 1) Biomedical Engineering (BITS F418) offered by Department of Chemical Engineering
 - 2) Application of Statistics and Computer information (PHA G510)

Note: General Biology (BIO F111) is offered as a foundation course which is compulsory to students admitted in all disciplines.
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	0	2
Associate Professors		7	7
Asst. Professors		7	8
Others		1 (Adjunct Professor); 2 (Lecturer)	

Note**:.The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental

needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./M.Phil. Students guided for the last 4 years
SK Verma	PhD	Professor	Environmental Biotechnology	22	5 (Supervisor: 4; Co-supervisor: 1)
A K Das	PhD	Professor	Molecular Parasitology	17	6
Shibashish chowdhary	PhD	Associate Professor	Bioinformatics and Computational Biology	12	4
Jitendra Panwar	PhD	Associate Professor	Microbial and Nanobiotechnology	10	5 (Completed: 1; Supervisor: 3; Co-supervisor: 1)
Sanjeev Kumar	PhD	Associate Professor	Vector Biology	7	5 (Supervisor: 3; Co-supervisor: 2)
Lalita Gupta	PhD	Associate Professor	Parasitology and Vector Biology	7	4 (Completed: 1; Supervisor: 3)
Uma Dubey	PhD	Associate Professor	Immunology	14	5 (Supervisor: 1; Co-supervisor: 4)
Vishal Saxena	PhD	Associate Professor	Molecular Parasitology	9	5 ongoing (Supervisor 2; Co-supervisor: 3)
Rajesh Mehrotra	PhD	Associate Professor	Plant Biotechnology	9	3
P R Deepa	PhD	Associate Professor	Cancer Biology	11	5
B Vani	PhD	Assistant Professor	Environmental Biotechnology	11	2 (Completed:1)
Prabhat Nath Jha	PhD	Assistant Professor	Microbial Biotechnology	7	2 (Completed:1)
Sandhya Mehrotra	PhD	Assistant Professor	Plant Biotechnology	7	3
Pankaj Sharma	PhD	Assistant Professor	Plant Biochemistry	7	1
Rajdeep Chowdhary	PhD	Assistant Professor	Cancer Biology	3	3
Shilpi Garg	PhD	Assistant Professor	Molecular Parasitology	3	2 (Co-supervisor: 1)
Sudeshna Mukherjee	PhD	Assistant Professor	Cancer Biology	2	1 as Co-supervisor
Sandhya Marathe	PhD	Assistant Professor	Host-Pathogen Interaction	2	0
Ashish Runthla	ME Biotechnology	Lecturer	Structural Biology and Protein Science	11	0
Manoj Kannan	ME	Lecturer	Epigenetics	8	0

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

- Adjunct Professor: Professor S.N. Mukopadhyay, IIT Delhi

- Visiting Faculty: Prof Suresh Arya, NIH, USA

13. Percentage of classes taken by temporary faculty – programme-wise information
1 %

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)

M.Sc. (Hons) Biological Sciences: **12.9:1**

ME Biotechnology: **6.3:1**

Ph. D.: **1.84:1**

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

	Sanctioned	Filled
Technical	2	2
Administrative	3	3

Technical: (1 Demonstrator+1 Operation Assistant)

16. Research thrust areas as recognized by major funding agencies :

- Bio-informatics and Computational Biology
- Environmental and Microbial Biotechnology
- Cancer Biology
- Parasitology and Vector Biology Group
- Plant Biotechnology

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Cloning and Characterisation of protein Phosphatase 2c like promoter from <i>Arabidopsis thaliana</i>	Rajesh Mehrotra	DST, New Delhi	12.57	3 years
2.	Biodiesel production through natural and engineered microbial lipases	Rajesh Mehrotra	Aditya Birla Group, Mumbai	10.00	2 Years
3.	Molecular Characterization of ACC (1-aminocyclopropane-1-carboxylate) Deaminase Activity of Associative Bacteria Isolated from Plants of Desert of Rajasthan	Prabhat N Jha(PI) Rajesh Mehrotra and SK Verma (CoPIs)	DBT, New Delhi	41.35	3 Years
4.	Characterization of immune signaling pathway in <i>Anopheles</i>	Lalita Gupta	Aditya Birla Group (ABG),	10.00	2 Years

	mosquitoes for arresting <i>Plasmodium</i> development		Mumbai		
5.	Molecular characterization of diazotrophic plant growth-promoting endophytic bacteria isolated from arid desert of Rajasthan.	Prabhat N Jha	DST, New Delhi	14.53	3 Years
6.	Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils	Jitendra Panwar (CCPI)	ICAR, New Delhi	41.539 (Total 614.7119)	6 Years
7.	<i>In-silico</i> Characterization of Non-native Structural Ensembles of Small Proteins and Peptides and Its Implication on Protein Folding and Misfolding Processes	Shibasish Chowdhury	DST, New Delhi	7.68	3 years
8.	Functional Mutations in the Opioid Receptors and their impact on immune cell function.	Uma S. Dubey (Co-PI)	ICMR, New Delhi	55.76 (Pilani Campus: Nil)	3 years
9.	Cloning & Characterization of major regions of plastid DNA of <i>Plasmodium vivax</i> from Indian isolates	Vishal Saxena	DST, New Delhi	10.17	3 years
12	Biodiesel Production from microalgae	S K Verma	CSIR, New Delhi	19.69	3 years
13	Characterization and pharmaceutical evaluation of bioactive compounds (cyanotoxins) from the cyanobacteria isolates from Shekhawati region of Rajasthan	S K Verma	UGC, New Delhi	6.26	3 years
14	Development of recombinant DNA based Biosensor device for detection of arsenic in water samples	S K Verma	DST, New Delhi	36.50	3 years
15	A Systems Biology approach towards understanding Severe Malaria with special reference to the Transcriptome and Proteome of the Parasite and the Host	A. K. Das	DBT, New Delhi	188.00 (Total; 500.00)	4 years

Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Mechanistic studies on extracellular biosynthesis of metal nanoparticles	Jitendra Panwar	DST, New Delhi	45.5	3 Years (2013-2016)
2.	Investigations on metal tolerance ability of soil fungi and their potential towards nanoparticle synthesis	Jitendra Panwar	UGC, New Delhi	15.05	3 Years (2013-2016)
3.	Molecular Characterization of <i>Anopheles stephensi</i> gut epithelial peroxidases and their role in modulating immunity against bacterial and fungal antigens	Sanjeev Kumar	DST, New Delhi	47.18	3 Years (Sep 2012-March 2016)
4.	Characterization of immune signaling pathway in <i>Anopheles</i> mosquitoes	Lalita Gupta	DST, New Delhi	21.2	3 Years (July 2012-July 2015)
5.	RNAi screening to study the role of <i>Aedes</i> ATP-binding cassette (ABC) transporters in immunity against blood-borne pathogens	Sanjeev Kumar	DBT, New Delhi	46.31	3 Years April 2015-2018
6.	Phytochemical and Metabolic Characterization of <i>Prosopis cineraria</i> Pods (Sangri) as Potential Nutraceuticals(No.SR/FT/LS-79/2012)	Pankaj Kumar Sharma	DST, New Delhi	21.92	3 years
7.	The Role of Hippo Signaling Pathway Components in Autophagy Regulation in Hepatocellular Carcinoma	Rajdeep Chowdhury	DST, New Delhi	24.00	3 years
8.	Identifying miRNA signatures associated with autophagy induced chemoresistance in hepatocellular carcinoma	Rajdeep Chowdhury	UGC, New Delhi	6.00	2 years
9.	Designing, synthesis and validation of a dehydration stress responsive promoter in plants	Sandhya Mehrotra (PI) Rajesh Mehrotra (CoPI)	UGC, New Delhi	12.85	3 years
10.	A Mechanistic Analysis of the Role of Pro-inflammatory Cytokines in induction of Epithelial to Mesenchymal Transition in Hepatocellular Carcinoma	Sudeshna Mukherjee	DST, New Delhi	16.80	3 years

11.	Characterization of Isoprenoid biosynthetic pathway enzymes from <i>Plasmodium vivax</i>	Vishal Saxena	UGC, New Delhi	7.78	3 years
12.	Characterization of major components of (FeS) Cluster assembly pathway in <i>Plasmodium vivax</i>	Shilpi Garg	DST, New Delhi	23.00	3 years
13.	Analysis of hypothetical and putative proteins dual targeted to apicoplast and mitochondria in <i>Plasmodium vivax</i>	Shilpi Garg	UGC, New Delhi	6.00	2 years
14.	Bio-leaching of copper from low grade ore at Hindustan Copper Limited, Khetri. (b) Ministry of Mines, New Delhi (c) 30.38 Lakhs (d) Three Years	S.K. Verma (Co-PI)	Ministry of Mines, New Delhi	30.38	3 years

c. Total Grant Received: 722.25 Lakhs

- **Completed Projects** : 398.28 Lakhs
- **Ongoing Projects** : 323.97 Lakhs

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration:

- Jitendra Panwar: World Bank funded NAIP-ICAR Project entitled "Nano technology for enhanced utilization of native-phosphorous by plants and higher moisture retention in arid soils". Other Institutes involved were CAZRI, Jodhpur; IIT, Mumbai; IISS, Bhopal, PAU, Ludhiana. Total Grant: 614.7119 Lakhs.
- Vishal Saxena: UGC Major Project entitled "Characterization of Isoprenoid biosynthetic pathway enzymes from *Plasmodium vivax*" in collaboration with S. P. Medical College and Associate Hospital, Bikaner.

b) International collaboration: Nil

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:

- UGC-DRS-SAP (Phase-I, 2007-2012) : Total grant 31.5 Lakhs.
- UGC-DRS-SAP (Phase-II, 2013-2018) : Total grant 70.75 Lakhs
- DST-FIST Level-I (2005-2010) : Total grant 30.0 Lakhs.
- DST-FIST Level-I (2012-2017) : Total grant 50.0 Lakhs

20. Research facility / centre with

- State recognition – Centre for Desert Development Technologies (CDDT)
- National recognition -
- International recognition -

The research facilities at Department of Biological Sciences are of International standards and have been developed with fundings from various government supports. These are well recognised at state/ National/ International levels.

- 21. Special research laboratories sponsored by / created by industry or corporate bodies:**
Plant Biotechnology Lab and Green House created under Centre for Desert Development Technology.

22. Publications (Last 5 Years):

SL No	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	142
2	Monographs	4
3	Chapters in Books	36
4	Edited Books	2
5	Books with ISBN with details of publishers	3
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	215
7	Citation Index – range / average*	0-444
8	SNIP	0.625-8.21
9	SJR	0.594-6.323
10	Impact Factor – range / average*	0-35 (Avg 1.72)
11	h-index	2-11
12	CONFERENCE PAPERS (NATIONAL/ INTERNATIONAL)	140

*= Some publications published before 2010 by BioSciences faculties have very high citations now but they have not been included here.

Details of the publications as per the number give above (Give details in the last five years)

Sl. No.	Authors	Title of the Publication	Detail of the Journal / Books/ Book Chapters	National/International	Year
1.	Mehrotra, R., Zutshi, I., Sethi, S., Bhalothia, P., Mehrotra, S.	Patterns and evolution of ACGT repeat cis element landscape across four plant genomes	BMC Genomics, vol 14: 203-214	International	2013
2.	Sidhu, G.K., Mehrotra, R., Mehrotra, S.	Carbon concentrating mechanisms: In rescue of RubisCO inefficiency:	Acta Physiologia plantarum, vol 36: 3101-3114	International	2014
3.	Mehrotra, R., Jain, V., Chandra Shekhar, Mehrotra, S.	Genome wide analysis of Arabidopsis thaliana reveals high frequency of AAAGN7CTTT motif	Metagene, vol 2: 606-615	International	2014
4.	Nigam, S. Mehrotra, S., Vani, B., Mehrotra, R.	Lipase Immobilization Techniques for Biodiesel Production: An Overview	International Journal of Renewable Energy & Biofuels, DOI: 10.5171/2014.664708	International	2014

5.	Mehrotra, R. Bhalothia, P. Bansal, P. Basantani, M.K., Bharti, V., Mehrotra, S	Abscisic acid and abiotic stress tolerance - different tiers of regulation	Journal of Plant physiology, vol 171: 486–496	International	2014
6.	Nogia, P., Sidhu, G.K., Mehrotra, R., Mehrotra, S.	Capturing atmospheric carbon: biological and non biological methods	International journal of low carbon technologies, vol 0:1-9	International	2013
7.	Bhattacharjee, S., Renganaath, K., Mehrotra, R., Mehrotra, S.	Combinatorial control of gene expression	Biomed Research International, DOI: org/10.1155/2013/407263	International	2013
8.	Maji, M., Mehrotra, R., Mehrotra, S.	Extraction of high quality cellulose from stem of Calotropis procera	South Asian J. Exp. Biol, vol 3(3):113-118	International	2013
9.	Bhalothia, P., Alok, A., Mehrotra, S., and Mehrotra, R.	AACA element negatively interferes with expression of Protein Phosphatase 2C like gene promoter	American Journal of Plant Sciences, vol 4: 549-554	International	2013
10.	Mangla, V., Ravi, B., Mehra, S., Mehrotra, S and Mehrotra, R.	Biofuels: An Overview with special emphasis on Biodiesel and the role of lipase enzyme in synthesis	Current chemical Biology, vol 7: 104-113	International	2013
11.	Ravi, B., Mehrotra, S., and Mehrotra, R.	Advances in Heterogeneous and Enzymatic catalysis for the industrial production of biodiesel by transesterification: An overview.	Current chemical Biology, vol 7: 104-113	International	2013
12.	Ravi, B., Banerjee, U., Mehrotra, R., and Mehrotra, S.	Engineering lipases for enhanced catalysis	Current chemical Biology, vol 7:114-120	International	2013
13.	Bhalothia, P., Mehrotra, S., and Mehrotra, R.	Cloning and characterization of protein phosphatase 2C like promoter from Arabidopsis thaliana.	International journal of Bioscience, Biochemistry and Bioinformatics, vol 3(2):103-105	International	2013
14.	Prabhat N Jha, Garima Gupta, Pameela Jha and Rajesh Mehrotra	Association of rhizospheric/endophytic bacteria with plants: A potential gateway to Sustainable agriculture	Greener Journal of Agriculture, vol 3: 73-84	International	2013
15.	Mehrotra, R., Yadav, A., Bhalotia,	Evidence for directed evolution of larger size	The scientific world journal,	International	2012

	P., Karan, R., Mehrotra, S.	motif in Arabidopsis thaliana genome.	DOI:10.1100/2012/983528		
16.	Ravi, B., Rai, M., Mehrotra, S. and Mehrotra, R.	An efficient protocol for the isolation of fungal DNA for strains obtained from oil contaminated fields	South Asian J Exp Biol, vol 9(2): 162-165	International	2012
17.	Gangawar, A., Mehrotra, S., Sharan, V.B., Karan, R., and Mehrotra, R.	10 ⁻⁴³ sec after the big bang and million years henceforth	Research and Reviews: A journal of Biotechnology, vol2 (1)	International	2012
18.	Norihiko Nakazawa, Rajesh Mehrotra, Masahiro Ebe and Mitsuhiro Yanagida	Condensin phosphorylated by the Aurora-B-like kinase Ark-1 is continuously required until telophase in a mode distinct from Top2	Journal of Cell Science, vol 124(11):1795-807	International	2011
19.	Mehrotra, R., Gupta, G., Sethi, R., Kumar, N. and Mehrotra, S.	Designer promoter: An artwork of cis engineering	Plant Mol. Biol, vol 75(6): 527-536	International	2011
20.	Mehrotra, S., Trivedi, P.K., Sethuraman, A., and Mehrotra, R.	The rbCL gene of Populus deltoides has multiple transcripts and is redox-regulated in vitro.	Journal of Plant Physiology, vol 168: 466-473	International	2011
21.	Mehrotra, R, Mehrotra, S. and Panwar, J.	Bionics: Where machines imitate life.	Biotech, Bioinformatics, Bioengineering, vol 1(2): 275-277	International	2011
22.	Mehrotra R., Mehrotra, S.	Promoter activation by ACGT in response to salicylic acid and abscisic acids is differentially regulated by the spacing between two copies of the motif.	Journal of Plant Physiology, vol 167(14):1214-8	International	2010
23.	Swarna Kanchan, Rajesh Mehrotra and Shibashish Chowdhary	Evolutionary pattern of four representative DNA repair proteins across six model organisms: an <i>insilico</i> analysis	Network Model Anal Health InformBioinforma, DOI: 10.1007/s13721-014-0070-1	International	2014
24.	Jain, N., Bhargava, A., Rathi, M., Dilip, R.V. and Panwar, J.	Removal of protein capping enhances the antibacterial efficiency of biosynthesized silver nanoparticles.	PLoS ONE, DOI: 10.1371/journal.pone.0134337	International	2015

25.	Jain, N., Alam, P., Laskar, I.R. and Panwar, J.	Aggregation induced phosphorescence' active iridium(III) complexes for integrated sensing and inhibition of bacteria in aqueous solution.	RSC Advances, vol 5: 61983-61988	International	2015
26.	Bhargava, A., Jain, N., Gangopadhyay, S. and Panwar, J.	Development of gold nanoparticle-fungal hybrid based heterogeneous interface for catalytic applications.	Process Biochemistry, vol 50:1293-1300	International	2015
27.	Jha, P., Panwar, J. and Jha, P.N.	Secondary plant metabolites and root exudates: guiding tools for polychlorinated biphenyl biodegradation	International Journal of Environmental Science and Technology, vol 12: 789-802	International	2015
28.	Solanki, P., Bhargava, A., Chhipa, H., Jain, N. and Panwar, J.	Nano-fertilizers and their smart delivery system.	Nanotechnologies in Food and Agriculture, Rai, M., Ribeiro, C., Mattoso, L. and Duran, N. (Eds.), Springer International Publishing, Switzerland, pp. 81-101	International	2015
29.	Yadav, B.K., Akhtar, M.S. and Panwar, J.	Rhizospheric plant microbe interactions: Key factor to soil fertility and plant nutrition.	Plant Microbe Symbiosis: Applied Facets, N.K. Arora (Ed.), Springer, India, pp. 127-145	National	2015
30.	Jain, N., Bhargava, A., Sabat, D. and Panwar, J.	Unveiling the potential of metal-tolerant fungal isolate for efficient enzyme production.	Process Biochemistry, vol 49: 1858-1866	International	2014
31.	Jain, N., Bhargava, A., and Panwar, J.	Enhanced photocatalytic degradation of methylene blue using biologically synthesized "protein-capped" ZnO nanoparticles.	Chemical Engineering Journal, vol 243: 549-555	International	2014
32.	Bhargava, A., Jain, N., Barathi, M., Akhtar, M.S., Yun, Y.S. and Panwar, J.	Synthesis, characterization and mechanistic insights of mycogenic iron oxide nanoparticles.	Journal of Nanoparticle Research, vol 15: 2031-2042	International	2013
33.	Akhtar, M.S., Panwar, J. and Yun, Y.S.	Biogenic synthesis of metallic nanoparticles by plant extracts.	ACS Sustainable Chemistry & Engineering, vol 1: 591-602	International	2013

34.	Gupta, G., Panwar, J. and Jha, P.N.	Natural occurrence of <i>Pseudomonas aeruginosa</i> , a dominant cultivable diazotrophic endophytic bacterium colonizing <i>Pennisetum glaucum</i> (L.) R. Br.	Applied Soil Ecology, vol 64:252-261	International	2013
35.	Jain, N., Bhargava, A., Tarafdar, J.C., Singh, S.K. and Panwar, J.	A biomimetic approach towards synthesis of zinc oxide nanoparticles.	Applied Microbiology and Biotechnology, vol 97: 859-869	International	2013
36.	Akhtar, M.S., Panwar, J.	Efficacy of root-associated fungi and PGPR on the growth of <i>Pisum sativum</i> (cv. Arkil) and reproduction of the root-knot nematode <i>Meloidogyne incognita</i> .	Journal of Basic Microbiology, vol 52: 1-9	International	2013
37.	Panwar, J., Jain, N. and Bhargava, A.	Interfacing agriculture with nanoparticles.	Advances in Medicinal Plant Research, Bohra, A., Bohra, Avinsah and Bissa, S. (Eds.), Agrobios (India), Jodhpur, India. pp.211-214	National	2013
38.	Panwar, J.	Nanoparticles: Controllable synthesis and characterization.	Nanotechnology in Soil science & Plant Nutrition, Adhikari, T., Kundu, S. and Rao, A.S. (Eds.), New India Publishing Agency, New Delhi, India pp.153-173	National	2013
39.	Khungar, B., Rao, M.S., Pericherla, K., Nehra, P., Jain, N., Panwar, J. and Kumar, A.	Synthesis, characterization and microbiocidal studies of novel ionic liquid tagged Schiff bases.	Comptes Rendus Chimie, vol 15: 669-674	International	2012
40.	Panwar, J., Jain, N. Bhargava, A., Akhtar, M.S. and Yun, Y.S.	Positive effect of ZnO nanoparticles on tomato plants: A step towards developing "nanofertilizers".	Proceedings of 3rd International Conference on Environmental Research and Technology pp.348-352	International	2012
41.	Akhtar, M.S., Babel, S., Yadav, B.K., Yadav, R.S. and Panwar, J.	Potentiality of <i>Thiobacillus</i> in agricultural system.	Advanced Science, Engineering and Medicine, vol 4: 77-80	International	2012

42.	Gupta, G., Panwar, J., Akhtar, M.S. and Jha, P.N.	Endophytic nitrogen-fixing bacteria as biofertilizers.	Sustainable Agriculture Reviews, Lichtfouse, E. (Ed.), Springer, Dordrecht, The Netherlands, vol 11: 183-221	International	2012
43.	Yadav, R.S., Meena, S.C., Patel, S.I., Patel, K.I., Akhtar, M.S., Yadav, B.K. and Panwar, J.	Bioavailability of soil P for plant nutrition.	Farming for Food and Water Security, Sustainable Agriculture Reviews, Lichtfouse, E. (Ed.), Springer, Dordrecht, The Netherlands, vol 10: 177-200	International	2012
44.	Akhtar, M.S. and Panwar, J.	Arbuscular mycorrhizal fungi and opportunistic fungi: Efficient root symbionts for the management of plant parasitic nematodes.	Advanced Science, Engineering and Medicine, vol 3: 165-175	International	2011
45.	Rao, K.V., Rao, M.S., Jain, N., Panwar, J. and Kumar, A.	Silver triflate catalyzed synthesis of 3-aminoalkylated indoles and evaluation of their antibacterial activities.	Organic and Medicinal Chemistry Letters, vol 1:10	International	2011
46.	Yadav, B.K., Tarafdar, J.C. and Panwar, J.	Microbial dynamics in rhizosphere of fruit plants during summer and monsoon in arid environment.	Indian Journal of Horticulture, vol 68: 161-169	National	2011
47.	Jain, N., Bhargava, A., Majumdar, S. Tarafdar, J.C. and Panwar, J.	Extracellular biosynthesis and characterization of silver nanoparticles using <i>Aspergillus flavus</i> NJP08: A mechanism perspective.	Nanoscale, vol 3: 635-641	International	2011
48.	Mehrotra, R., Mehrotra, S. and Panwar, J.	Bionics: Where machines imitate life.	Biotechnology, Bioinformatics and Bioengineering, vol 1: 275-277	International	2011
49.	Bhargava, A. Jain, N. and Panwar, J.	Synthesis and application of magnetic nanoparticles: A biological perspective.	Current Topics in Biotechnology & Microbiology, Dhingra, H. K., Jha, P.N. and Bajpai, P. (Eds.), LAP Lambert Academic Publishing AG & Co. KG, Dudweiler Landstr, Germany, pp.117-155	International	2011

50.	Yadav, B.K., Tarafdar, J.C., Panwar, J. and Yadav, R.S.	Phytase producing fungi and their efficiency in hydrolyzing phytin-P compounds.	Annals of Arid Zone, vol 42: 85-90	National	2010
51.	Subudhi AK, Boopathi PA, Pandey I, Kaur R, Middha S, Acharya J, Kochar SK, Kochar DK and Das A	Disease specific modules and hub genes for intervention strategies: A co-expression network based approach for Plasmodium falciparum clinical isolates.	Infection, Genetics and Evolution, vol 35: 96- 108	International	2015
52.	Subudhi AK, Boopathi PA, Pandey I, Kohli R, Karwa R, Middha S, Acharya J, Kochar SK, Kochar DK and Das A	Plasmodium falciparum complicated malaria: Modulation and connectivity between exportome and variant surface antigen gene families	Molecular and Biochemical Parasitology, vol 201(1): 31-46.	International	2015
53.	Boopathi PA, Subudhi AK, Garg S, Middha S, Acharya J, Pakalapati D, Saxena V, Aiyaz M, Chand B, Mugasimangalam RC, Kochar SK, Sirohi P, Kochar DK and Das A	Dataset of Natural Antisense Transcripts in P. vivax Clinical Isolates Derived using Custom Designed Strand-Specific Microarray	Genomics Data, Vol 2: 199-201	International	2014
54.	Subudhi AK, Boopathi PA, Garg S, Middha S, Acharya J, Pakalapati D, Saxena V, Aiyaz M, Chand B, Mugasimangalam RC, Kochar SK, Sirohi P, Kochar DK and Das A.	Natural Antisense Transcripts in Plasmodium falciparum isolates from patients with complicated malaria.	Experimental Parasitology, vol 141: 39-54.	International	2014
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102. Purva, Anshu Alok, Sidharth Tiwari and Rajesh Mehrotra. AACA element negatively regulates expression of protein phosphatase 2C (PP2C) like promoter in *Arabidopsis thaliana*. International conference on industrial biotechnology (IXth convention of The biotechnology research society, India) held at Patiala, Punjab (21st -23rd November'12).
103. Shobha Mehra, Ujjwal Kumar Banerjee and Rajesh Mehrotra. Microbial lipases: A step towards green chemistry. International conference on industrial biotechnology (IXth convention of the biotechnology research society, India) held at Patiala, Punjab (21st -23rd November'12).
104. Ujjwal Kumar Banerjee, Shobha Mehra and Rajesh Mehrotra. Hydrolytic and synthetic activity of lipase producing fungal strains isolated from oil contaminated sites in Mehsana. International conference on industrial biotechnology (IXth convention of the biotechnology research society, India) held at Patiala, Punjab (21st -23rd November 2012).
105. Michael J Haas, Vijay Singh, Santosh Kumar Padhi and Uwe T Bornscheuer, 'Advances in biodiesel production and quality improvement: the in situ transesterification of corn germ, and the removal of saturated monoglycerides via enzyme-catalyzed transesterification.' – Presented in '103rd AOCs Annual meeting & Expo' Long beach, CA, USA, from 29th April - 02nd May 2012 (Oral).
106. Ritika Lakhota, Shilpi Garg, Zarna Pala, Gagandeep S.Saggu, Akanksha Gupta, Vishal Saxena. "Characterization of the RimM protein encoding gene in *P. vivax*" presented at International Conference on Microbial, Plant & Animal Research (ICMPAR 2012), Mody Institute of Technology & Science, Sikar, from March 29-31, 2012.
107. Uma S. Dubey. Modelling the effect of toxicant on immune response in the presence of virus. Contemporary Trends in Biological and Pharmaceutical Research. March 12-13, 2011, Birla Institute of technology and Science. Pilani.
108. Verma, S.K., Nagappan, S., Upadhyay R. Nutritional control of phototrophic and heterotrophic growth of microalgae *Scenedesmus* sp for biodiesel production at 2nd International Conference on Algal Biomass, Biofuels and Bioproducts ,San Diego, USA June 10-13, 2012.
109. Somnath Maji, Panchsheela Nogia and Sandhya Mehrotra: Extraction of high quality cellulose from the stem of *Calotropis procera*. International conference on industrial biotechnology (IXth convention of the biotechnology research society, India) held at Patiala, Punjab (November 21-23, 2012).
110. Gurpreet Kaur sidhu and Sandhya Mehrotra : Analyzing structural and functional Evolutionary links between Rubisco and carbon concentrating Mechanisms Proteins. International conference on industrial biotechnology (IXth convention of the biotechnology research society, India) held at Patiala, Punjab (November 21-23, 2012).

2011:

111. Ashis Das, Amit Kumar Subudhi, Shilpi Garg, Boopathi P.A., Vishal Saxena, Deepak P., Dhanpat K. Kochar, Sheetal Middha, Jyoti Acharya, Sanjay Kochar, Utpal Tatu, Pragya Acharya, Rani Pallavi." Transcriptome data of *P.falciparum* and *P.vivax* parasites causing severe disease manifestations – Systems Network and causal interpretation. "Contemporary trends in Biological and Pharmaceutical Research held at Birla Institute of Technology and Science Pilani, from March 12 – 13, 2011.
112. Ashis Das, Amit Kumar Subudhi, Shilpi Garg, Boopathi P.A., Vishal Saxena, Deepak P., Dhanpat K. Kochar, Sheetal Middha, Jyoti Acharya, Sanjay Kochar. Transcriptome data of *P.falciparum* and *P.vivax* parasites causing severe disease manifestations – causal interpretations from network analysis. XI Symposium on Vector Borne Diseases, RMRCT, Jabalpur, 15th-17th October, 2011.

113. Rajesh Mehrotra presented a paper Evidence for directed evolution of larger size motif in *Arabidopsis thaliana* genome. *The 18th Penn State Plant Biology Symposium*, May 18-21, 2011 Pennsylvania State University, PA, USA.
114. Rajesh Mehrotra published Diversity of lipase producing bacterial strains of oil contaminated soils and their hydrolytic activity in *Ecology of Soil Microorganisms* 27th April- 1st May, 2011, Prague Czech Republic.
115. Purva Bhalothia, Prasali Banshal and Rajesh Mehrotra (2011) Cloning and characterization of Protein phosphatase 2C-like promoter from *Arabidopsis thaliana*. International conference on New Horizons in Biotechnology, Nov 21-24, Trivandrum.
116. Uthra Balasubramanian, Akhil Bajaj, Rajesh Mehrotra and Sandhya Mehrotra (2011) Hydrolytic activity and diversity analysis of lipase synthesizing bacteria from oil contaminated soils. *National Conference on Contemporary Trends in Biological and Pharmaceutical Research*, March 12-13, BITS, Pilani.
117. Madhulika Rai, Bhavya R., Shuvendu Kumar, Rajesh Mehrotra, Sandhya Mehrotra Isolation and characterization of fungal DNA collected from oil fields for the purpose of biodiesel production. *National Conference on Contemporary Trends in Biological and Pharmaceutical Research*, March 12-13, 2011, BITS, Pilani.
118. Vishal Saxena, Shilpi Garg, Gagandeep S. Saggu, Dhanpat K. Kochar, Sanjay K. Kochar, Ashis Das. "Molecular and Phylogenetic Analysis of *Plasmodium vivax* apicoplast genome" in International conference 22nd Molecular Parasitology Meeting held at Marine Biological Laboratory, Woods Hole, MA, USA from September 11 – 15, 2011.
119. Gagandeep S. Saggu, Ritika Lakhota, Akansha Gupta, Shilpi Garg Vishal Saxena. 2011. "Analysis of apicoplast targeted hypothetical proteins in *Plasmodium vivax*" in Contemporary Trends in Biological and Pharmaceutical Research, CTBPR– 2011 held at Birla Institute of Technology and Science, Pilani, India from March 12-13, 2011
120. Kumar S, Gupta L, Barillas-Mury C. 2011. Cell biology of *Plasmodium falciparum* midgut invasion of *Anopheles* mosquitoes. XI Symposium on vectors and vectors-borne diseases. Regional Medical Research Centre for Tribals, Jabalpur, India.
121. Kajla M, Bhattacharya K, Jnanasiddhy B, Banerjee UK, Gupta L, Kumar S. 2011. Screening and characterization of novel natural compounds for mosquito larvicidal activity. XI Symposium on vectors and vectors-borne diseases. RMRCT, Jabalpur, India.
122. Dubey U. S. and Dubey B., 2011. Modelling the effect of toxicant on immune response in the presence of virus. Contemporary trends in Biological and Pharmaceutical research CTBPR-2011 March 12-13.
123. Bhargava, A., Jain, N. and Panwar, J. 2011. Biogenic synthesis of iron nanoparticles. In: *National Conference on Contemporary Trends in Biological and Pharmaceutical Research*, March 12-13, 2011, BITS, Pilani, p. 53-54.
124. Jain, N. and Panwar, J. 2011. Elucidation of mechanism for extracellular synthesis of silver nanoparticles by fungi. In: *4th Congress of European Microbiologists (FEMS 2011)*, June 26-30, 2011, Geneva, Switzerland (Poster Presentation).
125. Bhargava, A., Jain, N., Barathi, M.L. and Panwar, J. 2011. Fungal mediated synthesis of iron oxide nanoparticles and their characterization. In: *52nd Annual Conference of Association of Microbiologists of India (AMI-2011)*, November 3-6, 2011, Punjab University, Chandigarh, p. 359.
126. Gupta, G., Panwar, J. and Jha, P.N. 2011. Temporal dynamics of *Pseudomonas aeruginosa*: A dominant diazotrophic endophytic bacterium of *Pennisetum glaucum* (L.) R. Br. In: *International Conference on New horizons in Biotechnology & 8th Annual Convention of The Biotech Research Society*, India, November 21-24, 2011, Trivandrum, India.

127. Panwar, J. 2011. Interfacing agriculture with nanoparticles. *In: National Conference on Current Status and Opportunities in Medicinal Plants of Thar Desert*, December 17-18, 2011, Mahila P.G. Mahavidhyalaya, Jodhpur, India.
128. Jain, N. Bhargava, A., and Panwar, J. 2011. Improved efficacy of biogenic silver nanoparticles. *In: International Conference on Nanomaterials & Nanotechnology (ICNANO-2011)*, December 18-21, 2011, University of Delhi, New Delhi, India, p. 180-181.
129. Sandhya Mehrotra presented a paper, "A novel active form of phosphoribulokinase coexists with ordinary phosphoribulokinase in the genome of the primitive cyanobacterium *Gloeobacter violaceus*. *The 18th Penn State Plant Biology Symposium*, May 18-21, 2011 in Pennsylvania State University, PA, USA.
130. Sandhya Mehrotra presented "Analyzing molecular evolution of Phosphoribulokinase, a key Calvin cycle enzyme, through examining the function of its homologue in heterotrophic bacterium *Escherichia coli*. (2011) *National Conference on Contemporary Trends in Biological and Pharmaceutical Research*, March 12-13, 2011, BITS, Pilani.
131. Jha, P. N., Misra N. and Gupta, G. Assessment and characterisation of Plant-associated mineral phosphate solubilising bacteria isolated from zinc mine. *In: international conference on 'Ecology of soil microorganisms' held at Prague, Czech Republic (Apr 27- May 1, 2011)*.
132. Swarna Kanchan, Rajesh Mehrotra, Shibasis Chowdhury "Understanding the evolutionary pattern of AP (apurinic/aprimidinic) endonucleases proteins in all the three domains of Life" *In: National Conference on Contemporary Trends in Biological and Pharmaceutical Research*, March 12-13, 2011, BITS, Pilani
- 2010:**
133. Vishal Saxena, Shilpi Garg, Dhanpat Kochar, Ashis Das "Apicoplast Genome of *Plasmodium vivax*" *American Journal of Tropical Medicine & Hygiene*. Vol. 83, Nov. 2010, No. 5, Pg. 220, Atlanta, USA.
134. Subudhi AK., Boopathi PA., Garg S., Pakalpati D., Saxena V., Middha S., Acharya J., Kochar D., Kochar S, Das A. "In vivo Transcriptome Study of Parasite Genes involved in Erythrocyte Sequestration and Immune Evasion from Severe *P. falciparum* field isolates". Poster presentation in EMBO global lecture course on Molecular and Evolutionary Genetics of Malaria at National Institute of Malaria Research, Dwarka, New Delhi, 21st November to 4th December, 2010.
135. Shilpi Garg, Vishal Saxena, Dhanpat K. Kochar, Sanjay K. Kochar, Ashis Das, (2010). Molecular surveillance of drug resistance marker genes in *Plasmodium vivax* isolates causing severe manifestations from India. Poster Presentation in EMBO global lecture course on Molecular and Evolutionary Genetics of Malaria at National Institute of Malaria Research, Dwarka, New Delhi, 21st November to 4th December, 2010.
136. Jain, N., Bhargava, A. and Panwar, J. 2010. Biosynthesis of silver nanoparticles: A green chemistry approach. *In: National Conference on Green and Sustainable Chemistry*, February 19-21, 2010, BITS, Pilani, p.82.
137. Kumar S, Gupta L, Rodrigues J, Molina-Cruz A, Barillas-Mury C. 2010. Peroxidase-mediated cross-linking of extracellular matrices modulates mosquito gut immunity against microbial antigens. *International Scientific Meeting on Recent Developments in Malaria Research*. International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India. Abstract No. 25.
138. Rajesh Mehrotra and Sandhya Mehrotra (2010) Understanding the interactions between cis acting upstream sequences in the regulation of gene expression in Plants. *National Conference on Bioprospecting: Access for Sustainable development*, Feb 19-20. MNIT, Allahabad.

139. Akhil Bajaj and Rajesh Mehrotra (2010) Screening of microorganisms for lipase activity. National Conference on green and Sustainable chemistry, Feb 19-21,2010, BITS, Pilani.
140. Jha, P.N. and Kumar A. Endophytic colonization of Diazotrophic Bacteria Isolated from Certain Plants. In: in National conference on 'Bioprospecting: Access for sustainable Development' held at MNNIT, Allahabad. (Feb 19-20, 2010).

23. Details of patents and income generated

1. Title: Biosynthesis of ZnO nanoparticles
Application No.: 1439/DEL/2011 dated
Date of filing: May 19, 2011
Published in: Patent Office Journal, Issue No. 20/2013, Page No.11020.
Publication Date: May 17, 2013
International Classification: A61K
Inventors: Jain, N., Bhargava, A. and Panwar, J.
Income generated so far: Nil
2. Title: "Specific, highly sensitive Nested PCR detection scheme for the *Plasmodium falciparum* and *Plasmodium vivax*".
Application No.: App No: 650/Del/2009
Published in: .: Journal No: 42/2010
Publication Date: 15/10/2010
Inventors: Ashis D and Deepak P
3. Title: "Temperature inducible promoter derived and modified from *Enterococcus faecium DJ1* plasmid, and its use in *E.coli* for production of desired protein".
Application No.: 3004/DEL/2010
Date of filing : 14/12/201
Inventors: Ashis D and Narayan J.
4. Title: "Oligonucleotides for the detection of Plasmodial sp. and an assay thereof".
Date of filing : 12/12/2013
Application No.: 3944/DEL/2012
Inventors : Ashis D. and Deepak P.
5. Title: Rapid non-enzymatic process for the reduction of chromium(VI) to chromium(III) by the *Nostoc calcicola* immobilized on silica gel
Application No.:582/DEL/2008
Date of filing: 10/03/2008,
Published in: Journal No.: 38/2009
Publication Date: 18/09/2009,
International Classification:
Inventors: Sanjay Kumar Verma, S. Ramachandran, and Pankaj Kumar Jain
Income generated so far:

24. Areas of consultancy and income generated: Nil

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

Rajesh Mehrotra: Visiting Foreign Scientist Okinawa Institute of Science and Technology from

- a. June 15 - July 15, 2015.
- b. July – December, 2013
- c. June – July, 2012
- d. February – July, 2011.

Jitendra Panwar: Visited Environmental Biotechnology National Research Lab, Chonbuk National University, Jeonju, South Korea (May 19, 2011 to August 18, 2011).

Lalita Gupta: Visiting Scientist at NIAID, National Institutes of Health (June-July 2011)

Prabhat N Jha: Visited Microbial Ecology Lab, Department of Microbiology and Molecular Genetics, Michigan State University, USA (July 09, 2013 to July 07, 2014).

Sandhya Mehrotra: Visited Plant Molecular Physiology Cluster, Australian National University, Canberra, Australia (December 2012 to March 2013).

Vishal Saxena: Visiting Scholar at Department of Global Health, College of Public Health, University of South Florida, Tampa, Florida, USA from June 8 – July 29, 2015.

S.K. Verma :

- International: Visited Thai Rayon, Bangkok under Industry Immersion scheme in 2011.
- National: Visited Viscos Industries at Nagda and Baroda in 2012.

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

a) National committees

S. K. Verma:

- Served as Academic Council Member of ICFAI University, Dehradun
- Served as Member of Board of studies of Bikaner University, VIT University, ICFAI University

Ashish Runthala: Reviewed the conference proceedings articles for the International Conference on Electronic Design, Computer Networks & Automated Verification (EDCAV), to be held during January 29-30, 2015 at NEC Building, Shillong, Meghalaya.

b) International committees :

S K Verma

Appointed as “Country Expert” by World Intellectual Property Organization (WIPO) to represent India on a multi-country project “Impact of IPR on economic growth.

c) Editorial Boards

- Rajesh Mehrotra: Plos One
- Jitendra Panwar:

- Technical Editor, Research Journal of Soil Biology
- Associate Editor, Advances in Environmental Biology
- Associate Editor, American-Eurasian Journal of Agricultural & Environmental Sciences
- Associate Editor, World Journal of Agricultural Sciences
- Associate Editor, Journal of Medicinal Plants Research
- Lalita Gupta: Frontier of Immunology: subsection Mosquito
- Sandhya Mehrotra:
 - Journal of Botanical Sciences;
 - Research in Biological Sciences.
- S.K. Verma:
 - Editor-in-chief, Proc.Advances in Biotechnology, by Global Science and Technology Forum, Singapore since 2010.
 - Served as Associate Editor, IUP journal.
- Ashish Runthala:
 - Editor, International Journal of Computational and Medicinal Chemistry.
 - Associate Editor, Research & Reviews : Journal of Biotechnology
 - Associate Editor, London Journals Press, United Kingdom.

d) any other (please specify)

Rajesh Mehrotra: Reviewer for prestigious international journals like Plant Molecular Biology, Journal of Molecular catalysis B: enzymatic, American chemical society journals.

Jitendra Panwar: Reviewer for Journals of International repute (Molecular Biology Reports, Journal of Biomedical Nanotechnology, African Journal of Biotechnology, Antonie Van Leeuwenhok, Letters in Applied Microbiology, PLoS One, Journal of Nanoparticle Research, Comptes Rendus Biologies etc.)

A.K. Das:

- Reviewer for Acta Tropica, Infection genetics and Evolution, Plos One, Pathogens and Global Health, Gene etc.
- PhD Thesis examiner for theses from JNU (NII, ICGEB,CDRI) New Delhi, University of Kashmir, Kashmir.

Vishal Saxena

- PhD Thesis examiner for Off – Campus theses from BITS, Pilani (Shankar-Netralaya, Chennai & L. V. Prasad, Hyderabad); JNU, Jodhpur.

Sandhya Mehrotra

- Reviewer of Frontiers of Plant sciences, Journal genes and genomics (Springer), Austin Journal of Biotechnology & Bioengineering, International Journal of

Biotechnology & Bioengineering, Journal of software and web sciences, Open science publications: American Journal of Biology and Life sciences, International Journal of agriculture, forestry and fisheries. On the review board of International association of scientific innovation and research,

Shilpi Garg: Reviewer in International Journal of Parasitology Research, USA; Member of reviewer panel in Research Foundation, Flanders, Belgium

Ashish Runthala is Reviewer for:

Journal of Advances in Biology, India; International Journal of Scientific Footprints; Journal of Proteomics & Bioinformatics; International Journal of Scientific Footprints; Proteomics as well as Systems Biology articles for the following journals of OMICS Publishing Group, USA (Metabolomics; Journal of Data Mining in Genomics & Proteomics; Drug Designing; Journal of Pharmacogenomics & Pharmacoproteomics); BIOINFORMATICS Journal of Oxford University Press; Proteomics articles for the Dove Medical Press Ltd, New Zealand journals (Research and Reports in Biology; Drug Design, Development and Therapy; Advances in Genomics and Genetics; Advances and Applications in Bioinformatics and Chemistry; Advances and Applications in Bioinformatics); Scientific & Academic Publishing, USA; International Journal of Applied Sciences and Biotechnology, Nepal; International Journal of Bioscience, Biochemistry and Bioinformatics; Universal Journal of Computer Science and Engineering Technology; Journal of Biotechnology and Pharmaceutical Research; Journal of Computer-Aided Molecular Design; International Journal of Bioinformatics Research.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

• **List of projects awarded by University:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Role of pro-inflammatory cytokines in Epithelial to Mesenchymal Transition in Hepatocellular Carcinoma	Rajdeep Chowdhury	BITS Pilani	2.00	2 years
2.	Analysis of genetic diversity of malaria parasite from Bikaner, India	Shilpi Garg	BITS, Pilani	2.00	2 years
3.	Zinc Recovery from Industrial Waste using Bioleaching (b) WWE, BITS Pilani (c) 48.0 Lakhs (d) Three Years	S.K. Verma (Co-PI)	WWE, BITS Pilani	48.00	3 years

Rajesh Mehrotra:

- Attended a 3 day workshop on Effective Teaching and Learning from July 18-20,2015.

Vishal Saxena:

- Selected under **University Immersion Program**, 2015, by BITS, Pilani to visit University/ Research Lab Abroad
- Participated in National Workshop "**Mass Spectroscopy techniques in Proteomics**" organised by DST, New Delhi for Asst. Professors or above at JNU, New Delhi, August, 2014.

Shilpi Garg:

- Participated in workshop on "**Application of Bioinformatics in Biomedical Research**" at Desert Medical Research Centre (ICMR), Jodhpur, Rajasthan from March 28-29, 2015.
- Participated in workshop on "**Hands on Next Generation Sequencing: Human Exome & Microbial Genome Sequencing**" at Genotypic Technology, Bangalore, India from January 19th – 24th 2011
- Participated in workshop on "**EMBO - Global Exchange Lecture Course on "Molecular and Evolutionary Genetics of Malaria"**", held at the National Institute of Malaria Research (NIMR), New Delhi, from November 21 – December 4, 2010.

28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects: 100%**
- **percentage of students doing projects in collaboration with other universities /industry / institute: 100%**

29. Awards / recognitions received at the national and international level by Faculty, Doctoral / post doctoral fellows students

a) Faculty:

Jitendra Panwar:

(i) Awarded Visiting Professor/Fellow under INSA-NRF International Bilateral Exchange/ Collaboration Programme 2011-12.

(ii) Received Best Oral Presentation Award in *International Conference on Biotechnology & Bioengineering* (ICBB-2014), October 29-30, 2014, BITS Pilani, Dubai Campus, Dubai.

Prabhat N Jha:

Awarded Raman Post-doctoral Fellowship (2013) under Indo-USA knowledge initiative program, University Grant Commission, New Delhi, India.

Sandhya Mehrotra:

(i) Awarded Indo-Australia Science and Technology Visiting Fellowship under INSA International Bilateral Exchange/ Collaboration Programme 2012-13.

(ii) Sandhya Mehrotra received DST travel award to attend the 18th Penn State Plant Biology Symposium at Pennsylvania State university, Pennsylvania, USA. May 2011

Rajesh Mehrotra:

- (i) International travel award of DST 2014 for attending the conference in Dublin Ireland.
- (ii) Chair the session in ICERT conference held in Malaysia 2012 in Penang (May 30-1 June)
- (iii) Fellow Society of Applied Biotechnology, 2011

Lalita Gupta:

1. Outstanding achievement award in International Congress of Entomology 2012
2. DST travel award 2012

Vishal Saxena:

- Travel award by CSIR, New Delhi for attending International Conference "22nd Molecular Parasitology Meeting" held at MBL, WoodsHole, MA, USA from September 12 – 16, 2011
- Travel award from organizing committee for presenting paper in the International Conference "59th Annual Meeting of American Society of Tropical Medicine & Hygiene" at Atlanta, USA from November 3 – 7, 2010.

Ashish Runthala:

- a. Research details got published on the web and got recognized by the Proteomics Weebly magazine by the Proteomics Department, High Beam Business company, USA.
- b. Rewarded with the post of Honorary Peer Reviewer for the BIOINFORMATICS Journal of Oxford University Press.
- c. Rewarded with the post of Honorary Peer Reviewer for the Global Journals, USA.

b) Doctoral / post doctoral fellows:

Dr. Shilpi Garg:

- Received UGC Dr. D. S. Kothari Post-doctoral Fellowship from 2011-2013.
- Selected as Best participant in EMBO Global Exchange Lecture Course on "Molecular and Evolutionary Genetics of Malaria" from 21 November – 04 December, 2010 held at National Institute of Malaria Research, New Delhi.

Dr. Prameela Jha: DST-Women Scientist under WOS-A project scheme awarded by DST, New Delhi (Project Title: Endophytic Bacteria mediated phytoremediation of organic pollutants).

Priyanka Solanki: Received Best Poster Presentation Award in *National Conference on Nano-Functional Material (NFM-2014)*, November 7-8, 2014, BITS Pilani, Pilani Campus, Pilani

Amit Kumar Subudhi received travel award from DBT New Delhi and FEBS-EMBO for presenting a paper entitled "Genome Wide Identification of Natural Antisense Transcripts in *Plasmodium falciparum* Clinical Isolates" in the FEBS-EMBO 2014 held at the Paris from 30th August to 4th September, 2014. The meeting was jointly organized by Federation of

European Biochemical Societies (FEBS) and European Molecular Biology Organization (EMBO) in association with French Society for Biochemical and Molecular Biology (SFBBM).

PA Boopathi received travel award from DST New Delhi and Wellcome-Trust to present a paper entitled "Discovery of Natural Antisense Transcripts in *Plasmodium vivax* clinical isolates" in the FEBS EMBO 2014 held at Paris from 30th August to 4th September, 2014.

Kuldeep Gupta: First Best Poster award in National symposium on Fight against Malaria Prospects and Prospective (FAMMP-2013), 9th March, 2013, Maharshi Dayanand University, Rohtak, Haryana, India.

Kuldeep Gupta: Best Poster award in XXIV National Congress of Parasitology, 27-29 April 2013, RMRCT, Jabalpur, M.P. India

Zarna Rajeshkumar Pala, Shilpi Garg, Gagandeep Singh Saggi, Sanjay K Kochar, Vishal Saxena (2014). "Characterization of nuclear encoded hypothetical proteins involved in Fe-S cluster biogenesis in *Plasmodium vivax*." Presented at 25th National Congress of Parasitology on "Global Challenges in Management of Parasitic Diseases: Host parasite interactions, Molecular Biology and Drug Development", at CSIR-Central Drug Research Institute (CDRI), Lucknow, India from October 16-18. (Best Poster Award).

Zarna Rajeshkumar Pala, Shilpi Garg, Gagandeep Singh Saggi, Vishal Saxena (2014). "Characterization of nuclear encoded hypothetical proteins involved in *Plasmodium vivax* apicoplast metabolic pathways." Presented at Recent Trends and Future Prospects of Microbiology and Biotechnology organized by Shri Jagdishprasad Jhabarmal Tiberwala University, Jhunjhunu, Rajasthan from March 3-4. (2nd Best Poster Award).

Zarna Pala RajeshKumar selected for 'Novartis Biotechnology Leader Camp 2012' held at Hyderabad, India. There she won the first prize in Team event.

Gagandeep S. Saggi, Dept. of Biological Sciences, BITS Pilani working as PhD student of Dr. Vishal Saxena received the Best Young Scientist award for talk delivered on "Characterization of Isoprenoid pathway genes from Indian field isolates of *Plasmodium vivax*" in National Conference "Recent trends and future prospects of Microbiology & Biotechnology" held at Shri Jagdishprasad Jhabarmal Tiberwala University (JJTU), Jhunjhunu from March 3rd - 4th, 2014.

Purva Bhalothia received DST travel award to present her paper in Rome, 2013.

Vandana Tomar received DST/Inspire fellowship.

Ms Jyothi Nagraj (PhD student) received best ORAL presentation award in the Conference - Global Science and Technology Forum (GSTF) in collaboration with IIT Kanpur, 5th Annual International Conference on Advances in Biotechnology-BIOTECH 2015 at IIT Kanpur during 13-15th March 2015.

c) Students:

Receipients of Khurana Award:

- Anukriti Mathur to visit laboratory in USA in 2015.
- Ankita Gupta and Bhanupriya to visit laboratory in USA in 2014
- Avantika Gupta to visit laboratory in USA in 2013.
- Anirban M Majudar and Sachin Sethi to visit laboratory in USA in 2012.
- Ipshta Zutshi to visit laboratory in USA in 2011.
- Sharvan S & Anant Padmanabhan to visit laboratory in USA in 2010.

Smarth Kakkar got selected for the summer internship at University of New South Wales in 2015.

Shikhin Garg got selected for the Summer Research Programme at S.N. Bose National Centre for Basic Sciences, India from May 2015 to July 2015.

Divyanshu Choudhary and Akshay Verma got admission to IIM, Calcutta and recommended them as part of their detail verification in 2015.

Yash Sinha got selected for the Undergraduate course for the Physical Sciences Research in the Rochester Institute of Technology at Rochester, New York in 2014.

Dhruv Sharma got selected for the research based summer internship at Max Planck Institute for Software Systems (MPI-SWS) in Germany during 2013.

Ankitash Tulyani got selected for the summer internship at the Astbury Centre for Structural Molecular Biology in the University of Leeds, Leeds, UK in 2011.

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

S. No.	Type of Event	Convener	Organising Secretaries/ Co-Convener	Details of Event	Funding Agency	National/ International	Year
1.	Workshop	Jitendra panwar	Pankaj Sharma, Vishal Saxena	Molecular Techniques: Cell to DNA (MTCD-2014) during April 10-12.	UGC-DRS-SAP	National	2014

2.	Symposium	Shibasish Chowdhury	Jitendra Panwar, Sanjeev Kumar, Shrikant Charde	Contemporary trends in Biological and Pharmaceutical research during March 12-13, 2011.	UGC-DRS-SAP	National	2011
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31. Code of ethics of research followed by the Department.

The department follows the code of ethics specified by the Institute.

32. a) Student profile programme-wise(in last 5 years. i.e. 2010-11 to 2014-15):

Name of the Programme	Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
M.Sc (Hons) Biological Sciences					
2010-2011	14662	37	15	100	100
2011-2012	12880	39	12	100	100
2012-2013	15174	37	15	100	100
2013-2014	15120	40	11	100	100
2014-2015	18717	38	14	100	100
M.E. Biotechnology					
2010-2011	150	7	8	100	100
2011-2012	135	6	5	100	100
2012-2013	155	6	6	100	100
2013-2014	170	7	9	100	100
2014-2015	187	4	11	100	100
Ph.D.					
2010-2011	Data not maintained				
2011-2012	Data not maintained				
2012-2013	149	1	3		
2013-2014	78	1	2		
2014-2015	51	0	3		

**BITS follows a credit based system and cafeteria approach in offering of courses. Students not performing well are monitored by ACB (Academic Counselling Board), HDCC (Higher Degree Counselling Cell) and ACC (Academic Counselling Cell). Their pace is slowed down. Normally not more than 3% students (including all programmes, B.E., B. Pharm, M.Sc, M.Pharm and M.E. etc.) at a given point of time are under the purview of ACB.*

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students From universities outside the State	% of Students From Other Countries
Ph.D.	2%	35%	63%	Nil
M.E. (Biotechnology)	1%	2%	97%	Nil

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Every year 2-3 students qualify CSIR-NET-JRF Examination. Samarth Hedge was all CSIR-

35. Student progression

Student progression		Percentage against enrolled
UG to PG		50-60 %
PG to M.Phil.		-
PG to Ph.D.		25%
Ph.D. to Post-Doctoral		25%
Employed		
☒	Campus selection	79.8
☒	Other than campus recruitment	20.2

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	25 %
from other universities within the State	5%
from universities from other States	70%
from universities outside the country	Nil

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: nil

38. Present details of departmental infrastructural facilities with regard to

a) Library: The institute has central Library. Library is state of art facility managed centrally.

S/N	Number of	No.	Remarks
1	Books	6490	
2	Journals	11	1597(eJournals) Peer Reviewed Journals tentative
3	Thesis	123	Submitted by BITS Students
4	E-books	2072	24/7 e-books- available for BITS faculty & WILP from Pearson

b) Internet facilities for staff and students: High speed internet facility is available in the campus.

<p>c) Students' laboratories:</p> <ol style="list-style-type: none"> 1. Biology Laboratory 2. Microbiology 3. Biotechnology 4. Genetic Engineering laboratory 5. Plant Biotechnology 6. Animal Cell Technology 7. Microscopy Laboratory 	<p>a) Research laboratories:</p> <ol style="list-style-type: none"> 1. Malaria Research 2. Environmental and Microbial Biotechnology 3. Plant Molecular Biology and Biochemistry 4. Computational Biology 5. Insectory 6. Cancer Biology 7. Radio Isotope laboratory
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39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university

- (i) Dr. Shilpi Garg (2008 – 2012)
- (ii) Dr. Shachi Singh (2012-2015)

b) from other institutions/universities

- (i) Dr. Prameela Jha (July 2012 to June 2015)
- (ii) Dr. Hemraj Cheepa (June 2013 to December 2013)

40. Number of post graduate students getting financial assistance from the university.

All post graduate students and on campus research scholars are given either teaching assistantship or fee waiver.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

An exercise was initiated for the development of diploma or minor degree during summer term. Core biology courses such as Microbiology, Cell Biology, Bioinformatics, Biochemistry and laboratory techniques were discussed over to include in the program. However, the overall discussion is still in a pre-mature stage and proper methodology is being designed to develop the program.

42. Does the department obtain feedback from

a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

There is a Departmental Academic Committee which brainstorms the course offering through different semester across academic years. It provides valuable suggestions related to the improvement of existing course curriculum. There is a major stress on removing the overlapping among various similar courses of Biology. A rigorous discussion on course curricular activities happen with all the faculty members for the improvement on course structure of the existing courses, contents etc. prior to beginning of each semester.

b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, students give feedback for faculty members, course curriculum, teaching, evaluation scheme etc. for every course on regular basis. We have 24X7 feedback online portal which is monitored by Instruction Division of BITS Pilani. We also have a departmental Student Faculty Council (SFA) where a committee is formed including a few experienced faculty members along with several students year wise. Faculty members involved in SFA collect information from these students regarding the running courses and inform the concerned faculty of a particular course for their valued suggestions.

c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

BITS has a strong alumni association which organize meets every year wherein alumni members visit department. Various Industries and Employers gives feedback on curriculum development and demands as per market through the

Placement Office of BITS Pilani which is considered for upgradation of respective course.

43. List the distinguished alumni of the department (maximum 10)

- D. Balasubramanian, Director, LV Prasad Eye Institute, Hyderabad
- Sudhir Kumar, Professor of Biology, School of Life Sciences, Arizona State University, Tempe, AZ
- Purnananda Guptasarma, Professor, Department of Biological Sciences, IISER, Mohali
- Ganesh Srinivasan Anand, Associate Professor, Department of Biological Sciences, National University of Singapore

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Department organize specialized lectures, workshops and seminars by inviting external experts from India and abroad on a regular basis. In addition, Department has also offered one unit credit course (Recent Developments in Biology) by external expert from NIH, USA for the benefit of the students.

45. List the teaching methods adopted by the faculty for different programmes:

Black Board, Power Point, Video presentations, Practical Labs, Inter-campus telepresence classes, External visits to Industries, Scientific excursions

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Internal Monitoring System: Department monitors all programmes based on the regular feedback by faculty, students, Instruction Division, Academic & Resource Planning Division and Academic Counselling Board.
- External Monitoring System: Periodic reviews of the academic programmes are done by external experts from academia.

47. Highlight the participation of students and faculty in extension activities.

- Some of the students and faculty members are involved in various extension activities of NSS and Nirmaan. For example blood donation camp

48. Give details of “beyond syllabus scholarly activities” of the department.

- Department organize Summer Camps for school children to promote the scientific quest at regular basis.
- In collaboration with other science departments, we organize popular talks periodically.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Research work by the faculty members of the Department has contributed to better understanding of eukaryotic promoter regulation, malarial parasite infection pathways and mechanisms, metaphase-anaphase transition of cell cycle in yeast, role of small RNAs in cancer, and action of inorganic carbon transporters in the chloroplast.

On the applied research side, the department members have contributed to applications of nanobiotechnology in agriculture, endophytes in enhancing plant growth, diagnostic PCRs for malaria, and phytochemical biology of desert plants.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths/Opportunities:

- Latest and continuously updated curricula in all subjects of M.Sc. (Hons.) Biological Sciences and M.E. Biotechnology (benchmarked with top universities of the world);
- Dedicated and experienced faculty both w.r.t. teaching and research in respective disciplines
- A number of elective courses available for students to choose from, depending on their interest and strengths
- Student participation in research through study- and lab-based projects of varying durations, ranging from one to three semesters
- Diversity in research areas of the faculty, as reflected in the following thrust areas: Environmental and Microbial Biotechnology, Plant Biotechnology, Parasitology and Vector Biology, Cancer Biology, Biochemistry and Enzyme Biotechnology, and, Bioinformatics and Biomolecular Modelling
- Research projects funded by major agencies including DBT, DST, CSIR, UGC, ICMR, ICAR, Dabur, ABG and others
- Number of quality publications and patents from the department has increased in the last five years.

Weaknesses/ Challenges:

- Laboratory components need to be attached with all compulsory courses.
- Need to enhance Interdisciplinary courses offered by the department.
- Interdisciplinary research need to be strengthened.
- More job-oriented courses need to be designed, such as in areas of Bioprocess Technology, Clinical Microbiology, Drug Designing, etc.
- Incorporation of latest pedagogical tools to cater to the new generation of students, who have access to various learning resources from the internet
- Need to attract more companies/ industries for placement of M.E. Biotechnology students.

52. Future plans of the department.

- To offer minor courses in industrially relevant areas such as industrial biotechnology, etc. with an aim to enhance the skill set of the passing out student.
- To organize one conference or workshop every year to bring together scientific minds from all over India/abroad and add to our own skills in the process

- To strengthen our M.Sc. programme via intake of PCB students.

53. Any other information regarding your department which you would like to include.

- Department hosted visit of Nobel laureate Prof Aaron Ciechanover on 29th November 2012 at the Institute.
- Invited talks were delivered by the Biological Sciences Faculties at various national and International Conferences within India and Abroad. A few major ones are as follows:
 - **Dr. Rajesh Mehrotra**
 - Delivered talk in Department of Mycology and Plant Pathology in Institute of Ag Sciences, Banaras Hindu University, Varanasi. Title "Promoter activation by ACGT in response to salicylic acid and abscisic acids is differentially regulated by the spacing between two copies of the motif" in 2014
 - Teaching Pedagogy in Shivalik college of Engineering, Dehradun on 23rd December 2012.
 - Delivered two talks titled "In Pursuit of Science" and "Cloning and characterization of Protein Phosphatase 2C like promoter" at 19th National Children science Congress under face to face interaction session organized by DST, Rajasthan held at Jaipur from 27th to 31st December 2011.
 - Chaired the session in Technical Session, 3rd *International Conference on Environmental Research and Technology*, May 30-June 1, 2012, Universiti Sains, Malaysia.
 - **Prof. Ashis Das**
 - "Partial analysis of *P. vivax* transcriptome from adult patients suffering from severe malaria manifestations" Int "Recent Developments in Malaria Research" at International Centre for Genetic Engineering & Biotechnology New Delhi, India, from December 1-3, 2010
 - "Partial Analysis of the *Plasmodium falciparum* transcriptome from adult patients suffering from severe malaria manifestations" : EMBO global lecture course on Molecular and Evolutionary Genetics of Malaria at National Institute of Malaria Research, Dwarka, New Delhi, from November 21st to 4th December, 2011.
 - " Transcriptome data of *P.falciparum* and *P.vivax* parasites causing severe disease manifestations – Systems Network and causal interpretation. "Contemporary trends in Biological and Pharmaceutical Research held at Birla Institute of Technology and Science Pilani, from March 12 – 13, 2011.
 - Transcriptome data of *P.falciparum* and *P.vivax* parasites causing severe disease manifestations – causal interpretations from network analysis. XI Symposium on Vector Borne Diseases, RMRCT, Jabalpur, October 15-17, 2011.
 - Ashis Das, Natural Antisense Transcripts from *Plasmodium vivax* Patient Derived Isolates, International Scientific Meeting Recent Developments in Malaria Parasite Biology, ICGEB, New Delhi, December 2-4 , 2013.

- Making sense out of antisense in clinical isolates of the *Plasmodium spp.* In *12th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases*. December 11-13, 2014 at The Royal River Hotel, Bangkok organized by Elsevier.
- Ashis Das, Translational Research in Malaria : Molecular Aspects of Complicated human malaria and new approaches to diagnosis, IISER, Mohali, April 2015.
- Ashis Das, Translational Research in Malaria : Molecular Aspects of Complicated human malaria and new approaches to diagnosis, IIT, Kharagpur, June 2015.
- **Dr. Vishal Saxena**
 - "Apicoplast & its Metabolic Pathways: Unique drug targets in *Plasmodium*", at Department of Global Health, College of Public Health, University of South Florida, Tampa, Florida on July 7, 2015.
 - "Apicoplast as a putative drug target in malaria parasite *Plasmodium*", at Department of Animal Biotechnology, Haryana Agriculture University, Hissar on April 26, 2014.
- **Prof. Jitendra Panwar**
 - Chairman, Technical Session, *National Conference on Nano-Functional Materials (NFM-2014)*, November 7-8, 2014, BITS Pilani, Pilani Campus, India.
 - Chairman, Technical Session, *International Conference on Biotechnology & Bioengineering (ICBB-2014)*, October 29-30, 2014, BITS Pilani, Dubai Campus, Dubai.
 - Chairman, Technical Session, *3rd International Conference on Environmental Research and Technology*, May 30-June 1, 2012, Universiti Sains, Malaysia.
 - Panwar, J. Development of "bioinspired" protocols for fabrication of nanoparticles. In: *Training Course on Nanoparticle production, characterization and utilization in agriculture*, Central Arid Zone Research Institute, Jodhpur, India. March 9-19, 2014. (*Expert Lecture*)
 - Panwar, J. Nanoparticles: Controllable Synthesis and Characterization. In: *Short Course on Application of nanotechnology in soil science and plant nutrition research*, Indian Institute of Soil Science, Bhopal, India. September 18-27, 2012. (*Expert Lecture*)
 - Panwar, J. Mycosynthesis of nanoparticles and their characterization. In: *Training on Nanoparticle Production, Characterization and Utilization in Agriculture*, Central Arid Zone Research Institute, Jodhpur, India. February 23 - March 03, 2012. (*Expert Lecture*)
 - Panwar, J. Nanotechnology for enhanced P mobilization in arid soils. In: *National Conference on Emerging Trends in Biotechnology and Pharmaceutical Research*, Mangalayatan University, Aligarh, India. February 18-19, 2012. (*Key-Note Lecture*)
 - Panwar, J. Biomimetics @ nanoscale, At: Department of Agricultural Biology, Division of Plant Biotechnology, College of Agriculture & Life Science, Chonnam National University, Gwangju, South Korea. August 3, 2011.

Pilani Campus: Evaluative Report of the Department CHEMICAL ENGINEERING

- 1. Name of the Department :** Chemical Engineering
- 2. Year of establishment of the Department:** 1963
- 3. Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
- 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
 - BE (Hons.) Chemical Engineering
 - ME Chemical Engineering
 - ME Chemical Engineering with specialization in Petroleum Engineering
 - PhD
 - BS Process Engineering
- 5. Interdisciplinary programmes and departments involved**
None as of now.
- 6. Courses in collaboration with other universities, industries, foreign institutions, etc.**
 - **First Degree (FD) Thesis and Higher Degree (HD) Dissertation:** Some of the BE (Hons.) and ME Chemical Engineering have done their BE Thesis and HD Dissertation in prominent national and international institutions/universities/organization/R & D labs.
 - **Practice School (PS) – I:** Almost all the students of BE (Hons.) undergo a 2 months exposure oriented course in various national/international industrial organizations.
 - **Practice School (PS) – II:** A significant number of BE (Hons.) students and a fairly good number of ME students engage in solving industrial/research problems for 5.5 to 6 months.
 - **Project:** Design project was taken with an objective of designing Chemical Engineering processes.
- 7. Details of programmes discontinued, if any, with reasons:** No
- 8. Examination System:** Semester and Choice Based Credit System
- 9. Participation of the department in the courses offered by other departments.**
 - BITS F111 Thermodynamics
 - ESC 242 Structures and Properties of Materials
 - AAO 222 Optimization
 - TA C222 Measurement Techniques – II

- BITS C217 Environment, Development & Climate Change
- BIO G544 Bioremediation and Biometallurgy
- ET ZC362 Environmental Pollution Control (WILP)
- TA ZC232 Engineering Measurements (WILP)

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	01*	01*
Associate Professors		02	02
Asst. Professors		10 + 01*	10 + 01*
Others (Lecturers)		03 + 01*	03 + 01*

*off-campus faculty number

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Bandi Venkata Prasad	Ph.D.	Professor	Project Management, Operations Management and Project Appraisal	33	-
Suresh Gupta	PhD	Associate Professor	Environmental Engineering, Separation Processes, Modeling and Simulation	13	1 + 5*
Arvind K Sharma	PhD	Associate Professor	Environmental Engineering, Environmental Biotechnology, Biochemical Engineering	19	1
Hare Krishna Mohanta	PhD	Assistant Professor	Process Control	18	1 + 2*
Pradipta Chattopadhyay	PhD	Assistant Professor	Foam Modeling and Foam Based Applications	8	1*
Sheth Pratik Nitinchandra	PhD	Assistant Professor	Energy Engineering, Modelling and Simulation	12	3*
Smita Raghuvanshi	PhD	Assistant Professor	Environmental Biotechnology, Environmental	11	2*

			Management Systems		
Banasri Roy	PhD	Assistant Professor	Nano-materials, Energy Engineering, Biomedical Engineering	17	1*
Sonal Mazumder	PhD	Assistant Professor	Nanotechnology	7	-
Raman Sharma	PhD	Assistant Professor	Energy and Environmental Engineering	7	1*
Srinivas Appari	PhD	Assistant Professor	Energy Engineering, Reaction Engineering, Modelling and Simulation & Control	7	-
Ajaya Kumar Pani	PhD	Assistant Professor	Process Modelling and Control	12	-
Amit Jain	PhD	Lecturer	Process Control, Biochemical Engineering	12	-
Priya C Sande	ME (PhD Thesis Submitted)	Lecturer	Computational Fluid Dynamics	8	-
Samir Ramdas Kale	M.E.	Assistant Professor	Process Plant Safety, Fiber Technology	15	-
Subhajit Majumder	ME (PhD Thesis Submitted)	Lecturer	Environmental Engineering, Environmental Biotechnology	6	-
Utkarsh Maheshwari	PhD	Lecturer	Environmental Engineering, Separation Processes	6	-
Khandgave Santosh Sopanrao	M.E.	Lecturer	Computational Fluid Dynamics	5	-
*Ongoing PhD students					

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors. NIL

13. Percentage of classes taken by temporary faculty – programme-wise information: NIL

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation).

BE (Hons) = **18:1**

ME Chemical = **3:1**

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual.

Total = Five (5)

	Sanctioned	Filled
Technical	2	2
Administrative	3	3

16. Research thrust areas as recognized by major funding agencies.

- Transport Phenomena & Separation Processes
- Chemical Reaction Engineering & Thermodynamics
- Material Science and Engineering
- Environmental Engineering
- Energy and Process System Engineering

3	Evaluation and Enhancement of Foam Stability of Ethanol based Aqueous Foam using Commercial Surfactant Sodium Lauryl Sulfate	Dr Pradipta Chattopadhyay	DST	25.0	2013 – 16
4	Production of hydrogen-rich fuel gas from Jatropha residue cake	Dr Pratik N Sheth	DST	24.90	2013 – 16
5	Zinc Recovery from Industrial Waste using Bioleaching	Dr. Suresh Gupta	WWE	48.00	2014 – 17

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration – 1

National Mission Project on Education through ICT: Developing suitable pedagogical methods for various classes (Process Design Decisions), intellectual calibers and research in e-learning Anchored by IIT-Kharagpur, Sponsored by MHRD, worth Rs. 2.0 Lakhs (Principal Developer – Prof B V Babu and Co-Developer – Prof Suresh Gupta)

b) International collaboration - Nil

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

UGC-SAP: Rs. **38.7** Lakhs

UGC Infrastructure: Rs. **20.0** Lakhs

DST FIST: Rs. **80.5** Lakhs

Total Grant Received: Rs. 139.2 Lakhs

20. Research facility / centre with

- state recognition
- national recognition
- international recognition

Yes. All research facilities are state/national/international recognized as most of the facilities are created by the external funding.

21. Special research laboratories sponsored by / created by industry or corporate bodies

NIL

22. Publications:

S No	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	90
2	Monographs	NIL
3	Chapters in Books (Refer Annexure I)	05
4	Edited Books (Refer Annexure I)	02
5	Books with ISBN with details of publishers (Refer Annexure I)	01
6	Number listed in International Database (For e.g. Web of	90

	Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	
7	Citation Index – range / average	0 – 44 / 4.79 (Avg. per publication)
8	SNIP	0.84 (Avg. per publication)
9	SJR	0.56 (Avg. per publication)
10	Impact Factor – range / average	0 – 5.901 / 1.54 (Avg. per publication)
11	h-index	42.5 (Avg. per publication)
12	No. of Publications in National/International Conferences	202

Details of the publications as per the number give above (Give details in the last five years)

Chapters in Books

1. Pratik N Sheth and B V Babu, "Advances in Downdraft Biomass Gasification". In Handbook of Research on Chemoinformatics and Chemical Engineering, Edited by A K Haghi, Nova Science Publishers, USA (2010).
2. Smita Raghuvanshi, Subhajit Majumder, Suresh Gupta, Biofiltration: Essentials, Research and Applications. In Bioremediation and Sustainability: Research and Applications, Edited by Romeela Mohee and Ackmez Mudhoo, Scrivener Publishing LLC., USA, March 2012.
3. Subhajit Majumder, Suresh Gupta and Smita Raghuvanshi, "Removal of dissolved metals by Bio-remediation". In Heavy Metals in Water: Presence, Removal and Safety Edited by Sanjay Sharma, RSC Publishing, UK, August 2014.
4. S. Aich and B. Roy, "Titanium Oxide Nanostructured Coating for Ti andTi Related Bio-implants," In Avinish Kumar Srivastava (editor), "Oxide Nanostructures: Growth, Microstructures and Properties" CRC press, 2014, ISBN: 9789814411356.
5. Jain, Amit and Babu B. V., "Proceedings of the Second International Conference on Soft Computing for Problem Solving (SocProS 2012), December 28-30, 2012", Babu, B.V., Nagar, A., Deep, K., Pant, M., Bansal, J.C., Ray, K., Gupta, U. (Eds.), Advances in Intelligent Systems and Computing, 236 (DOI: 10.1007/978-81-322-1602-5-48), Springer India, 2014.

Edited Books

1. Jain, A., Kumar, S. (editors), Proceedings of conference on, Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), Excellent Publishing House, New Delhi, March 23-24, 2012 (ISBN No.: 978519381583-31-9).
2. Mohana, H. K., Gupta S., Sheth P. N., (editors), Proceedings of the 8th Annual Session of Students' Chemical Engineering Congress (SCHEMCON 2012), Excellent Publishing House, New Delhi, March 23-24, 2012 (ISBN No.: 978-93-81583-61-6)

Books with ISBN with details of publishers

1. S. Mazumder, "Quantum Dots for Detection of Harmful Bacterial Pathogens," LAP Academic Publishing, Germany, 2013. 56 pages. ISBN No. 9783847326908.

List of Journal Publications

S No	Authors	Title of the Publications	Details of the Journal	National / International	Year
1	N. Prakash, and A. K. Sharma	Modeling of Ethylene Polymerization with Zirconocene Catalyst and Estimation of Kinetic Parameters using Differential Evolution Algorithm.	International Journal of Chemical Modeling, 4 (4), 499-514, 2012.	International	
2	Suresh Gupta, B.	Experimental and modeling	Journal of Water	International	2010

	V. Babu	aspects in column studies for removal of Cr(VI) using activated tamarind seeds.	Resource and Protection Vol. 2 (No. 8), pp. 706-715, 2010.		
3	Suresh Gupta, B. V. Babu	Experimental-, kinetic-, equilibrium- and regeneration studies for adsorption of Cr(VI) from aqueous solutions using low-cost adsorbent (activated flyash).	Desalination and Water Treatment, Vol. 20 (1-3), pp. 168-178.	International	2010
4	H.K. Mohanta and D. Kunzru	Magnesium Aluminate Catalyzed Pyrolysis of n-Heptane.	International Journal of Chemical Sciences, 8(2), 751-762, 2010.	International	2010
5	H.K. Mohanta, and R.K. Gupta	Online Implementation of Wavelet-based Identification and Dynamic Matrix Control in a Heat Exchanger Unit.	International Journal of Automation and Control, 4 (3), 317-342, 2010.	International	2010
6	Pratik N Sheth and B.V.Babu	Production of hydrogen energy through biomass (waste wood) gasification	International Journal of Hydrogen Energy, Vol. 35 (No. 19), pp. 10803-10810, 2010.	International	2010
7	B. Roy and P. A. Fuierer	Influence of sodium chloride and dibasic sodium phosphate salt matrices on the anatase-rutile phase transformation and particle size of titanium dioxide Powder	Journal of American Ceramic Society, 93, 436 (2010).	International	2010
8	B. Roy, K. Loganathan, A.K. Datye, and C. A. Leclerc	Surface modification of solution combustion synthesized Ni/Al ₂ O ₃ catalysts for aqueous-phase reforming of ethanol	International Journal of Hydrogen Energy, .35, 11700 (2010).	International	2010
9	S. Mazumder, J Sarkar, R Dey, M.K. Mitra, S. Mukherjee and G.C. Das	Biofunctionalised Quantum Dots for Sensing and Identification Waterborne Bacterial Pathogens	Journal of Experimental Nanoscience, 5 (5), pp 438-446, 2010	International	2010
10	S. Mazumder, J. Falkinham, I. K. Puri	Role of Hydrophobicity in Bacterial Adherence to Carbon Nanostructures and Biofilm Formation	The Journal of Bioadhesion and Biofilm Research, 26 (3), pp. 333 – 339, 2010.	International	2010
11	D Datta, D S Patle	Sensitivity Analysis of Steady-State Methyl Acetate Synthesis Reactive Distillation Column Using Aspen Plus.	The IUP Journal of Science & Technology 6 (3), 24-35, 2010.	International	2010
12	S Kumar, D Datta, BV Babu	Experimental Data and Theoretical (Chemodel Using the Differential Evolution Approach and Linear Solvation Energy Relationship Model) Predictions on Reactive Extraction of Monocarboxylic	Journal of Chemical & Engineering Data, 55 (10), 4290-4300, 2010.	International	2010

		Acids Using Tri-n-octylamine.			
13	Dipaloy Datta, Suresh Gupta	Modeling and simulation of isothermal fixed-bed adsorption column: comparison of pore and solid diffusion mass transfer.	International Journal of Chemical Modeling, Vol. 3 (No. 3) 2011.	International	2011
14	Utkarsh Maheshwari , Suresh Gupta	Kinetic and equilibrium studies of Cr (VI) removal from aqueous solutions using activated neem bark.	Research Journal of Chemistry and Environment, Vol. 15 (No. 2), pp. 939 – 943, 2011.	International	2011
15	Subhajit Majumder, Smita Raghuvanshi, Suresh Gupta,	Biodegradation kinetics of Cr (VI) by acclimated mixed culture	Research Journal of Chemistry and Environment, Vol. 15 (No. 2), pp. 181 – 184, 2011.	International	2011
16	D. Aditya, Rohan Parmar, Suresh Gupta,	Nano-adsorbents for wastewater treatment: a review.	Research Journal of Chemistry and Environment, Vol. 15 (No. 2), pp. 1033-1040, 2011.	International	2011
17	N. Prakash, and A. K. Sharma	Kinetic Modeling of Gas Phase Ethylene Polymerization with Silica Supported Metallocene Catalyst and Determination of Kinetic Parameters using Differential Evolution Algorithm.	International Journal of Polymers and Technologies, 3 (2), 109-115, 2011.	International	2011
18	A. K. Pani, and H. K. Mohanta	A survey of data treatment techniques for soft sensor design.	Chemical Product and Process Modeling, 6(1), 2011.	International	2011
19	Pradipta Chattopadhyay, Arpit Shah, Aaditya Jain	Experimental Determination of Foaming Characteristics of Aqueous Iso-Propanol Solution by Addition of Surfactants	Research Journal of Chemistry and Environment. Vol. 15, No. 2, pp. 672-676, June 2011.	International	2011
20	Pradipta Chattopadhyay,	Foam Over Temperatures Using Glass Coker Experimentation: A Case Study	The IUP Journal of Chemical Engineering, India, Vol. 3, No. 3, pp. 45-50, 2011.	National	2011
21	B. Roy, P.A. Fuierer, and S. Aich	Synthesis of TiO ₂ scaffold by using molten salt synthesis technique	Powder Technology 208, 657 (2011).	International	2011
22	B. Roy, L. Li, and S. Aich	Effect of salt composition on photovoltaic performance of the dye sensitized solar cells prepared from nano anatase TiO ₂ powder using NaCl-Na ₂ HPO ₄ ·2H ₂ O salt matrices	Journal of Material Science, 46, 7611 (2011).	International	2011
23	B. Roy, P.A. Fuierer, and S. Aich	Photovoltaic performance of dye sensitized solar cell based on rutile TiO ₂ scaffold electrode prepared by a two-step bi-layer process using	Materials Letters 65, 2473 (2011).	International	2011

		molten salt matrices			
24	B. Roy, H. Sullivan, C.A. Leclerc	Aqueous-phase reforming of n-BuOH over Ni/Al ₂ O ₃ and Ni/CeO ₂ catalysts	Journal of Power Sources, 196, 10652 (2011).	International	2011
25	S. Mazumder, S. Ghosh, I.K. Puri	Non-premixed flame synthesis of hydrophobic carbon nanostructured surfaces.	Proceedings of the Combustion Institute, 33 (2), pp. 3351-3357, 2011.	International	2011
26	S Kumar, D Datta, BV Babu	Differential evolution approach for reactive extraction of propionic acid using tri-n-butyl phosphate (TBP) in kerosene and 1-decanol	Materials and Manufacturing Processes 26 (9), 1222-1228, 2011.	International	2011
27	S Kumar, N Prakash, D Datta	Biopolymers Based on Carboxylic Acids	Biopolymers: Biomedical and Environmental Applications 70, 169, 2011.	International	2011
28	S Kumar, D Datta, BV Babu	Estimation of equilibrium parameters using differential evolution in reactive extraction of propionic acid by tri-n-butyl phosphate	Chemical Engineering and Processing: Process Intensification 50 (7), 614-622, 2011.	International	2011
29	D Datta, S Kumar, KL Wasewar	Reactive extraction of benzoic acid and pyridine-3-carboxylic acid using organophosphoric and aminic extractant dissolved in binary diluent mixtures	Journal of Chemical & Engineering Data 56 (8), 3367-3375, 2011.	International	2011
30	D Datta, S Kumar	Reactive extraction of 2-methylidenebutanedioic acid with N, N-dioctyl octan-1-amine dissolved in six different diluents: experimental and theoretical equilibrium studies at (298±1) K	Journal of Chemical & Engineering Data 56 (5), 2574-2582, 2011.	International	2011
31	D Datta, S Kumar	Reactive extraction of glycolic acid using tri-n-butyl phosphate and tri-n-octylamine in six different diluents: Experimental data and theoretical predictions	Industrial & Engineering Chemistry Research 50 (5), 3041-3048, 2011.	International	2011
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43	Bhupendra K. Sharma, Suresh Gupta, V. Vamsi Krishna, R. J. Bhargavi	Soret And Dufour effects on an unsteady MHD mixed convective flow past an infinite vertical plate with Ohmic dissipation and heat source.	Afrika Matematika, Vol. 25, pp. 799 – 821, 2014.	International	2013
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49	R. Sharma, M. K. Chandel, A. Delebarre, and B. Alappat	200 MW Chemical looping combustion based thermal power plant for clean power generation	International Journal of Energy Research. 37, 49-58	International	2013
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52	D Datta, S Kumar	Reactive extraction of pyridine carboxylic acids with N, N-dioctyloctan-1-amine: experimental and theoretical studies	Separation Science and Technology 48 (6), 898-908, 2013.	International	2013
53	Subhajit Majumder, Smita Raghuvanshi, Suresh Gupta	Estimation of Kinetic Parameters for Bioremediation of Cr(VI) from Wastewater using <i>Pseudomonas taiwanensis</i> an isolated strain from Enriched Mixed Culture.	Bioremediation, Vol. 18, pp. 236–247, 2014.	International	2014
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76	Somesh Mishra, Rajnish P singh, Smita Raghuvanshi, Suresh Gupta	Deducing the Bio-Perspective Capabilities of Fe(II) Oxidizing Bacterium Isolated from Extreme Environment.	Biochemistry & Analytical Biochemistry, Published online (doi:10.4172/2161-1009.1000166)	International	2015
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80	Tapas K Patra and Pratik N Sheth	Biomass gasification models for downdraft gasifier: A state-of-the-art review	Renewable and Sustainable energy Reviews, Vol. 50, pp.583-593, 2015.	International	2015
81	R. Sharma and Pratik N Sheth	Thermo-Chemical Conversion and of Jatropha Deoiled Cake: Pyrolysis vs. Gasification	International Journal of Chemical Engineering and Applications, Vol. 6 (No 5), pp 376-380, 2015	International	2015
82	C. Sekhar, B. Roy, and S. Aich	Synthesis of nanoscale oxide scaffold on Nitinol surface using hydrothermal treatment, "	Surface Engineering 2015; DOI: http://dx.doi.org/10.1179/1743294415Y.0000000038	International	2015
83	B. V. Vedula, M. Chopra, E. Joseph, S. Mazumder	Preparation and characterization of nanoparticles of carboxymethyl cellulose acetate butyrate containing acyclovir	Applied Nanoscience, open access, pp. 1-11 (online open-access)	International	2015
84	S. Mazumder, Y. Fan, C.J. Cornelius	Carbon-Ionomer nanocomposite wetting properties: The role of ionomer composition and surface roughness	International Journal of Material Science and Application, 4(2), pp. 69-76, 2015.	International	2015
85	Srinivas Appari, Ryota Tanaka, Chengyi Li, Shinji Kudo, Jun-ichiro Hayashi, Vinod M. Janardhanan, Hiroaki Watanabe, Koyo Norinaga,	Predicting the Temperature and Reactant Concentration Profiles of Reacting Flow in the Partial Oxidation of Hot Coke Oven Gas using Detailed Chemistry and a One-dimensional Flow Model.	Chemical Engineering Journal, 266, 82-90, 2015.	International	2015
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List of Conference proceedings

S No	Details of the conference article	National / International
2010		
1	Dipesh S. Patle, Ankit Singhania, and H. K. Mohanta, "Composition Control of Binary Distillation Column using GMC-ASE Control Scheme", Accepted in PSE ASIA 2010 –The 5th International Symposium on Design, Operation and Control of Chemical Processes, Singapore, July 25th to 28th, 2010.	International
2	Pratik N. Sheth, U. Amita and B.V.Babu, Experimental Studies on Gasification of Pine Wood Shavings in a Downdraft Biomass Gasifier. Proceedings of 2010 Annual Meeting of AIChE, Salt Lake City, UT, November 7-12, 2010	International
3	U. Amita, Pratik N. Sheth, and B. V. Babu, Combined Transport and Kinetic Modeling of Downdraft Biomass Gasifier. Proceedings of 2010 Annual Meeting of AIChE, Salt Lake City, UT, November 7-10, 2010	International
4	Sushil Kumar, and B.V.Babu, Reactive Extraction of Nicotinic Acid Using with Tri-n-Octylamine Dissolved in Different Diluents. Proceedings of 2010 Annual Meeting of AIChE, Salt Lake City, UT, November 7-12, 2010	International
5	Dipaloy Datta and Sushil Kumar, Separation of Nicotinic Acid from Aqueous Solution by Reactive Extraction using Tri-n-butyl phosphate and Tri-n-Octyl-amine in Decane-1-ol + Cyclohexane (1:1 v/v), Proceedings of The 17th Regional Symposium on Chemical Engineering (RSCE2010), Queen Sirikit National Convention Center, Bangkok, Thailand, November 22 to 23, 2010	International
6	Rajeev Sharma, Sonal K. Thengane and Ashish M Gujarathi, Simulation and Sensitivity Analysis of an Auto-thermal Ammonia Synthesis Reactor. Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Department of Chemical Engineering, Annamalai University, December 27-29, 2010.	International
7	Dipaloy Datta and Sushil Kumar, Reactive Extraction of Itaconic Acid using Tri-Octylamine (TOA) Dissolved in Different Diluents. International Symposium & 62nd Annual Session of IChE (CHEMCON-2010), Annamalai University, Annamalainagar, December 27-29, 2010	International

8	Mayank Anand Jha, Abhishek Chajjer, D Aditya and Suresh Gupta, Removal of Phenol from Wastewater using Ultrasonic Degradation. Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Department of Chemical Engineering, Annamalai University, December 27-29, 2010	International
9	Pradipta Chattopadhyay, Coke Yield Prediction Using Pilot Unit Experimental Set up. Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Annamalai University, Annamalai, December 27-30, 2010	International
10	Subhajit Majumder and Suresh Gupta, Biofiltration for Heavy Metals Removal: A State-of-the-art Review. Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Department of Chemical Engineering, Annamalai University, December 27-29, 2010	International
11	Sushil Kumar, T.R.Mavelly and B.V.Babu, Reactive Extraction of Carboxylic Acids (Butyric-, Lactic-, Tartaric-, Itaconic- Succinic- and Citric Acids) using Tri-n-Butylphosphate (TBP) Dissolved in 1-Dodecanol and n-Octane (1:1 v/v). Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Annamalai University, Annamalai, December 27-30, 2010	International
12	Utkarsh Maheshwari and Suresh Gupta, Kinetics and Equilibrium Studies of Chromium (VI) Removal from Aqueous Solutions using Neem Bark as a Low Cost Adsorbent. Proceedings of International Symposium & 63rd Annual Session of IChE in association with International Partners (CHEMCON-2010), Department of Chemical Engineering, Annamalai University, December 27-29, 2010	International
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13	Ashish M. Gujarathi, and B.V.Babu, Hybrid Multi-objective Differential Evolution for Multi-objective Optimization of Industrial Polymeric Materials. Proceedings of XXVIII Conference on Computer Methods in Materials Technology (KomPlastTech-2011), Zakopane, Poland, January 16-19, 2011	International
14	Amit Jain and B.V.Babu, Relative Gain Array Analysis for Process Model Uncertainty: A Worst-case Bound, Proceedings of International Conference on Science & Engineering (ICSE-2011), January 21-23, 2011, Rohtak, India	International
15	Dipaloy Datta, and Sushil Kumar, Reactive Extraction of Pyridine-4-carboxylic (iso-Nicotinic) acid with Tri-n-butyl phosphate and Tri-n-octylamine Dissolved in Benzyl Alcohol, Proceedings of Conference on Advances in Chemical Engineering (AChemE-2011), February 27-28, 2011, Thapar University, Punjab, India	National
16	Pradipta Chattopadhyay, Liquid Yield Prediction Model Using Glass Coker Experimental Set Up, Proceedings of Conference on Advances In Chemical Engineering, Thapar University, February 27-28, 2011, Thapar University, Department of Chemical Engineering, Patiala, Punjab	National
17	Amit Jain and B.V. Babu, Analyzing Effective Relative Energy Array (EREA) as a Criterion for Input-Output Pairing of Multivariable Processes, Proceedings of 19th IEEE Workshop on Nonlinear Dynamics of Electronic Systems (NDES-2011), March 09-11, 2011, Kolkata, India	International
18	Amit Jain and B.V. Babu, Analysis of Process Interactions in Dynamic Systems Using Frequency Dependent RGA, Proceedings of 2011 International Conference on Control, Robotics and Cybernetics (ICRC-2011), March 19-20, 2011, New Delhi, India	International
19	Anshu Yadav, Akshay Nipane, G. Prasanth, Smita Raghuvanshi, Life Cycle Assessment for Coal Fired Power Plants, Proceedings of Recent Advances in Chemical Engineering and Technology (RACET-2011), March 10-12, 2011, Cochin University of Science & Technology, Cochin, India	National
20	Sushil Kumar, R.T. Mavelly and B.V. Babu, Reactive Extraction of Carboxylic Acids (Butyric-, Lactic, Tartaric-, Itaconic- Succinic- and Citric Acids) using Tri-n-Butylphosphate (TBP) Dissolved in 1-Dodecanol and n-Octane (1:1 v/v), Proceedings of Recent Advances in Chemical Engineering and Technology (RACET-2011), March 10-12, 2011, Cochin University of Science & Technology, Cochin, India	National
21	Sushil Kumar, Dipaloy Datta and Neha Chomal, Recovery of Itaconic Acid from Aqueous Solution using Reactive Extraction with Tri-n-Butylphosphate (TBP) in Dichloromethane (DCM), Proceedings of Recent Advances in Chemical Engineering and Technology (RACET-2011), March 10-12, 2011, Cochin University of Science & Technology, Cochin, India	National

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24	D. Aditya, Rohan Parmar and Suresh Gupta, Nano-adsorbents for wastewater treatment: a review, 5th International Congress of Chemistry and Environment (ICCE-2011), May 27-29, 2011, Port Dickson, Malaysia	International
25	Utkarsh Maheshwari and Suresh Gupta, Kinetic and Equilibrium Studies of Cr (VI) Removal from Aqueous Solutions using Activated Neem Bark, 5th International Congress of Chemistry and Environment (ICCE-2011), May 27-29, 2011, Port Dickson, Malaysia	International
26	Smita Raghuvanshi and Suresh Gupta, Environmental Impact Assessment of Metro Rail Project, 5th International Congress of Chemistry and Environment (ICCE-2011), May 27-29, 2011, Port Dickson, Malaysia	International
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28	Pradipta Chattopadhyay, Arpit Shah, Aaditya Jain, Experimental Determination of Foaming Characteristics of Aqueous Iso-Propanol Solution by Addition of Surfactants, Proceedings of 5th International Congress of Chemistry and Environment (ICCE-2011), May 27-29, 2011, Port Dickson, Malaysia	International
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30	Ajaya Kumar Pani, Vamsi Vadlamudi, R J Bhargavi, Hare Krishna Mohanta, Neural Network Soft Sensor Application in Cement Industry: Prediction of Clinker Quality Parameters, IEEE International Conference on Process Automation, Control and Computing (IEEE-PACC 2011), 20 - 22nd July 2011, Coimbatore, India	International
31	Sushil Kumar and B.V. Babu, Equilibrium and Kinetic Studies on Reactive Extraction of Propionic Acid using Tri-n-Octylamine (TOA) Dissolved in Cyclohexane + Decanol (1:1v/v), Proceedings of 2011 Annual Meeting of AIChE, October 16-21, 2011, Minneapolis, USA	International
32	Dipaloy Datta, and Sushil Kumar, Reactive Extraction of Nicotinic Acid Using Tri-n-Octylamine and Aliquat-336 Dissolved in Sunflower Oil as a Non-toxic Diluent, Proceedings of International Conference on Sustainable Manufacturing: Issues, Trends and Practices (ICSM-2011, November 10-12, 2011, Birla Institute of Technology & Science, Pilani, India	International
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35	Ashish M. Gujarathi, S. Porohit, R. Manachanda, and D Ghosh, Differential Evolution using Jumping Genes Adaptation, Proceedings of Indian International Conference on Artificial Intelligence (IICAI 2011), December 14-16, 2011, Bangalore, India	International
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38	D. Aditya, R. J. Bhargavi and Suresh Gupta Kinetics Studies for the Removal of Cr(VI) from Wastewater using Aluminum based Nano adsorbent, Proceedings of International Symposium and 64th Annual Session of IChE in association with International Partners (CHEMCON-2011), December 27-29, 2011, Department of Chemical Engineering, M. S. Ramaiah Institute of Technology, Bangalore, India	International
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135	Sae Vyahare, Suresh Gupta, Removal of Cu(II) from Aqueous Solution using Nanoparticles as Adsorbents, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
136	Arun, Utkarsh Maheshwari, Suresh Gupta, Removal of Zn(II) from Aqueous Solutions using Activated Neem Bark as an Adsorbent: Equilibrium Studies, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
137	Utkarsh Maheshwari, Suresh Gupta, Column studies for Chromium(VI) removal using Activated Neem Bark as a low cost adsorbent, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
138	Subhajit Majumder, Gayathri Gangadhar, Smita Raghuvanshi, Suresh Gupta, Bioremediation of Cu(II) Contaminated Aqueous Solution Using Acinetobacter sp., Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
139	Avinash Narayan, Suresh Gupta, Smita Raghuvanshi, Experimental studies for biodegradation of dichloromethane, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
	Subhajit Majumder, Amrita, Smita Raghuvanshi, Suresh Gupta, Bioremediation of Cr(VI) Contaminated Aqueous Solution using Pseudomonas sp., Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
140	Somesh Mishra, Pratibha Pal, Suresh Gupta, Smita Raghuvanshi, Experimental studies for CO ₂ mitigation using acclimated mixed culture, Proceedings of International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON-2013), Department of Chemical Engineering, University Institute of Chemical Technology, Mumbai, India, December 27-30, 2013.	International
141	N. Prakash, S. Kumar, A. K. Sharma, Metallocene Catalyzed Propylene Polymerization: Modeling, Simulation and Parameter Estimation using Differential Evolution Approach, International Symposium & 66th Annual Session of IChE in association with International Partners (CHEMCON – 2013), Dec. 27-30, 2013, Mumbai, India.	International

2014		
142	Akanksha, Sharma, A., Mazumder, S., The role of structure and surface composition on the contact angle and wetting characteristics of carbon nanofiber coatings, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
143	Ambatkar, K., Gupta, S., Majumder, S., Experimental study for the removal of hexavalent chromium from industrial wastewater using bioremediation, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
144	Ashwath, A. K., Pradeep, S., Raghuvanshi, S., Synthesis & characterization of graphene oxide nanoparticles for water purification applications, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
145	Ashwath, A. K., Pradeep, S., Raghuvanshi, S., Synthesis and characterisation of graphene oxide nanoparticles for water purification, Proceedings of 7th International Congress of Environmental and Research, RVCollege of Engineering, Bangalore, December 26 - 28, 2014.	International
146	Batra, S., Gupta, S., Experimental and theoretical studies for removal of dyes from industrial wastewater using bioremediation, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
147	Chattopadhyay, P., Kumar, A., Experimental Studies for Characterization of Ethanol based Aqueous Foam in terms of Liquid Drainage, Proceedings of Conference on Advances in Chemistry and their Biological and Industrial Relevance (ACBIR 2014), NIT Rourkela, India, 10-11th January, 2014.	National
148	Chattopadhyay, P., Kumar, A., Experimental Studies for Characterization of Surf Excel Detergent generated Aqueous Foam, Proceedings of Conference on Innovation and Development in Chemical Technology (IDCT 2014), Guru Gobind Singh Indraprastha University, India, 28th February-1st March, 2014.	National
149	Chattopadhyay, P., Malik, J., Mishra, R., Venkata, V., Chowdhury, S., Analysis of Surfactant generated Butanol based Aqueous Foam, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
150	Chattopadhyay, P., Venkata, V., Chowdhury, S., Characterization of Aqueous Foam with Additive Ferrous Chloride, Proceedings of Conference on Nano and Functional Materials (NFM 2014), BITS Pilani, Pilani, India, 7th-8th November, 2014.	National
151	Chopra, M., Mazumder, S., Preparation and characterization of curcumin loaded polymeric nanoparticles by rapid precipitation method, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
152	Davis, R., Mazumder, S., Pereira, J., Arca, C., Edgar, K.J., Nanoparticles of antiviral drugs and polysaccharide for oral drug delivery: Effect of polysaccharide chemistry, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
153	Garg, A., Maheshwari, U., Modeling of the Temperature Distribution Profile in Horizontal Well Drilling, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International

154	Ghosalkar, S., Aich, S., Roy, B., Development of Metal Doped Bismuth Vanadate (BIMEVOX) Nano Catalyst Systems for H ₂ Production. Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
155	Gupta, S., Maheshwari, U., Copper (II) Removal Using Activated Neem Bark from Waste Water As a Low Cost Adsorbent: Column Studies, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
156	H, Raghuram., Maheshwari, U., Key Parameters Effecting the Desalting Operation of Unconventional Crude Oil, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
157	Jain, A., Analysis of Closed-loop Interaction in Dynamic Multi-loop Control System, Proceedings of the International Conference on Power, Control and Embedded System (ICPCES-2014), MNNIT, Allahabad, India, December 26-28, 2014.	International
158	Kamanakeri, B., Maheshwari, U., Optimization of Gas-Oil Three Stage Separator's Pressure to Increase Stock Tank Oil Using Aspen Plus, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
159	Kumar, S., Sheth, P.N., Reactive Extraction of Nicotinic Acid from Aqueous Solution: Equilibrium and Kinetic Study, Proceedings of International Conference on Advances in Chemical Engineering and Technology "Chemical Engineering – Traditional and Beyond" ICACE TKMCE '14 organized by Department of Chemical Engineering, T.K.M. College of Engineering, Kerala during Oct 16-18, 2014.	International
160	Vyawahare, S., Pradhan, S. K., Gupta, S., Removal of Heavy Metal Ions from Industrial Waste Water Using Metallic Nanoparticles as Adsorbents. Proceedings of National Conference on Nanotechnology and Renewable Energy (NCNRE – 2014), Department of Applied Sciences and Humanities, Jamia Millia Islamia, New Delhi, April 28 – 29, 2014.	National
161	Vedula, V. B., Chopra, M., Joseph, E., Saha., R. N., Mazumder, S., Preparation and characterization of acyclovir loaded CMCAB nanoparticles in multi inlet vortex mixer in International Conference on Nanoscience and Engineering Applications (ICONSEA 2014), IST-JNTU, Hyderabad.	International
162	Maheshwari, U., Singhai, A., Kalita, D., Nenmini, A., Simulation and Optimization of the Production of Phthalic Anhydride from O-Xylene, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
163	Maheshwari, U., Ambatkar, K., N, Prathyusha., Simulation and Optimization of Ethyl Benzene Production Using Aspen Plus Platform, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
164	Maheshwari, U., Ashwath, A. K., Models Describing the Thermal Recovery as a Productive Option for the Heavy Oil Reservoirs, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
165	Maheshwari, U., Batra, S., Pande, P., Simulation and Optimization of Production of Cyclohexane from Benzene Using Aspen Plus, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
166	Maheshwari, U., Gaikwad, S., Shale Gas as a Potential Source of Unconventional Reserve for Crude Oil, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
167	Maheshwari, U., Kalita, D., Downhole Catalytic Upgradation of Heavy Oil, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
168	Maheshwari, U., Kamankeri, B., Gaikwad, S., Design & Optimization of Cumene Plant Using Aspen Plus Platform, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International

169	Maheshwari, U., Kuhar, K., Gupta, S., Equilibrium studies for the removal of cr(vi), cu(vi) and zn(ii) Using activated neem bark, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
170	Maheshwari, U., Kuhar, K., Pundir, V. S., MDEA as an Effective Solvent for the Natural Gas Sweetening Process, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
171	Maheshwari, U., Nori, U. M., Nimisha, K. R., Optimization of Formaldehyde Production from Methanol By Utilizing Silver Catalyst Process, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
172	Maheshwari, U., Singh, K., Fire Flooding as a Budding Source of Enhanced Oil Recovery, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
173	Maheshwari, U., Vashishtha, S., Oil Sands Processing: An Unconventional Source of Synthetic Crude Oil, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
174	Maheshwari, U., Vedula, B., Mukherjee, A., Modeling and Simulation of Removal of CO ₂ and N ₂ from Natural Gas Using Aspen Plus Platform, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
175	Maheshwari, U., Vyawahare, S., High Pressure, High Temperature Wells, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
176	Majumder, S., Gangadhar, G., Raghuvanshi, S., Gupta, S., Optimization Of Divalent Copper Bioremediation By Acinetobacter Guilloviae Using Response Surface Methodology, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
177	Majumder, S., Gangadhar, G., Raghuvanshi, S., Gupta, S., Optimization of divalent copper bioremediation by Acinetobacter guilloviae using response surface methodology, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
178	Majumder, S., N, Pratyusha., Raghuvanshi, S., Gupta, S., Optimization of Process Parameters in Bioremediation of Cr(VI) Contaminated Aqueous Solution through Response Surface Methodology, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
179	Majumder, S., Raghuvanshi, S., Gupta, S., Singh, A., Bioremediation growth kinetics of Cr(VI) contaminated aqueous solution using Pseudomonas sp., an indigenous microbial strain isolated from aerobic mixed culture, Proceedings of 2014 International Congress on Environmental, Biotechnology, and Chemistry Engineering (CEBCE 2014), IPCBEE vol.64, IACSIT Press, Singapore. DOI: 10.7763/IPCBEE. 2014. V64. 6.	International
180	Manglani, G. N., Vashishtha, S., Roy, B., Development of Ni-Sn/Al ₂ O ₃ Nano Catalysts for H ₂ Production from Biomass by Aqueous Phase Reforming, Proceedings of National Conference on Nanotechnology and Renewable Energy (NCNRE – 2014), Department of Applied Sciences and Humanities, Jamia Millia Islamia, New Delhi, April 28 – 29, 2014.	National
181	Mazumder, S., Nanoparticulate formulation for delivery of hydrophilic and hydrophobic drugs. Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
182	Mishra, S., Raghuvanshi, S., Gupta, S., Production of fatty acids and light oils from CO ₂ mitigation using Bacillus cereus SM1 isolated from sewage treatment plant, Proceedings of International Conference on Emerging Trends in Biotechnology (ICETB-2014), JNU Delhi, Novemeber 6 - 9, 2014.	International

183	Mohanta, H. K., Vedanta Sutra in the Context of Science and Spirituality, in the Proceedings of the 8th All India Students' Conference on Science and Spiritual Quest (AISSQ – 2014) held in IIT (BHU), Varanasi during February 1-2, 2014, pp. 76-90.	National
184	Nori, U. M., Gupta, S., Vyawahare, S., Development of nano-particles using physical/chemical methods for the recovery of heavy metals from industrial waste water, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
185	Pal, P., Maheshwari, U., Foam Mobility Control: An Enhanced Oil Recovery Technique, Proceedings of 2014 AIChE Spring Meeting & 10th Global Congress on Process Safety, Hilton New Orleans Riverside, LA, USA, 30th March - 2nd April, 2014.	International
186	Pal, P., Mishra, S., Gupta, S., Raghuvanshi, S., Utilization of Mixed Culture and Isolated Species for Biomitigation of CO ₂ , Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, USA, November 16-21, 2014.	International
187	Prakash, N., S, Kumar., Sharma, A. K., Kinetic Modeling of Propylene Polymerization with Me ₂ Si[Ind]ZrCl ₂ /MAO Catalyst System, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
188	Raghuram, H. S., Pradeep, S., Mazumder, S., Factors effecting synthesis and characterization of ZnS based colloidal quantum dots, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
189	Raj, K., Chauhan, P., Mishra, S., Raghuvanshi, S, Optimization of parameters (pH and temperature) for CO ₂ mitigation using isolated species from Sambhar Lake", Proceedings of Bioprocessing India - 2014, ICT - Mumbai, December 17 - 20, 2014.	National
190	Raj, K., Desai, A., Mishra, S., Raghuvanshi, S., Isolation of photosynthetic microbial species for CO ₂ mitigation from Sambhar Lake, Rajasthan, India, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
191	S. Vashishtha, G. N. Manglani, and B. Roy, Development of Ni-Sn/Al ₂ O ₃ Nano Catalyst Powders Using Solution Combustion Synthesis for H ₂ Production from Biomass by Aqueous Phase Reforming, APCMET-2014, April 19-20, at Jawaharlal Nehru University, New Delhi.	National
192	Sande, P. C., Ray, S., The Role of Time in the Computational Definition of Minimum Bubbling Velocity in Gas-Fluidization, Proceedings of 2014 AIChE Annual Meeting, Atlanta Marriott Marquis and Hilton Atlanta, Atlanta, GA, USA, November 16-21, 2014.	International
193	Singh, A., Maheshwari, U., Optimization of Residue Upgradation to Useful Product Using Aspen Plus Platform, Proceeding of 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr. SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014.	International
2015		
194	Pradipta Chattopadhyay, R. Arun Karthick, Perla Kishore, "Comparison studies for Foamability of foam generated by use of Surf Excel and Sodium Lauryl Sulfate", Proceedings of Conference on Recent Trends in Chemical Engineering and Technology (REACT 2015), Nagpur, India, 27-28th February, 2015.	National
195	Pradipta Chattopadhyay, R. Arun Karthick, Venkata Vijayan, Soumya Chowdhury, "Foamability and stability of foam generated by use of Ethanol and Surf Excel", Proceedings of Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE 2015), BITS Pilani, Pilani, India, 27-28th February, 2015.	National
196	Jain, R., Suman, S., Gupta, Anshu., Mazumder, S., "Synthesis and Characterization of Polymeric Nanoparticles for Oral Delivery of Aspirin for Anti Cancer Treatment" in International Conference and Exhibition on Biotechnology, Hyderabad, 3-4 August, 2015.	International
197	Chopra, M., Jain, R., Mazumder, S., "Synthesis and characterization of polymeric nanoparticles for oral delivery of curcumin" in International Conference on Nanotechnology (ICNT 2015), Haldia, 19-22 February, 2015.	International

198	Mazumder, S., "Effect of polysaccharide chemistry on solution concentration of nanoparticle complexes of polysaccharides and antiviral drugs", Nanotech Dubai 2015, Dubai, UAE, 16-18 March, 2015	International
199	Dewangan, A.K., Varkey, S., Mazumder, S., "Synthesis of Curcumin Loaded CMCAB Nanoparticles for Treatment of Rheumatoid Arthritis", International Conference on Chemical, Environmental and Biological Sciences (CEBS 2015), Dubai, 18-19 March 2015.	International
200	Varkey, S., Dewangan, A.K., Mazumder, S., 2015. "Optimization of Product Parameters of Drug Loaded Polymeric Nanoparticles Prepared by Rapid Precipitation", International Conference on Chemical, Environmental and Biological Sciences (CEBS 2015), Dubai, 18-19 March 2015.	International
201	Riddhi J, Shravan P and A K Sharma, Statistical Thermodynamics: Opportunities and Challenges, Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE 2015), Feb 27-28, 2015, Pilani, India.	National
202	Ashwath A B, Karthick R and A K Sharma, Effects of Secondary Cracking in Fluid Catalytic Cracker, National Conference on Technological Advances in Chemical, Petroleum and Natural Gas Engineering (ACPNe 2015), April 10-11, 2015, Chandigarh, India.	National

23. Details of patents and income generated: NIL

24. Areas of consultancy and income generated : NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

• Dr Suresh Gupta

- The Fertilisers and Chemicals Travancore Limited (FACT Ltd), Kochi, Kerala (March 31 – April 1, 2014), Reddipalayam Cements Works, Reddipalayam (March 15 - 16, 2012) and Central Leather Research Institute, Chennai (March 19 - 20, 2012) as part of PS-I enhancement program taken by Practice School Division.
- Birla Cellulosic Kharach, Bharuch, Aditya Birla Group Company (June 19 – 24, 2011), Ultra Tech Cement, Kotputli, Rajasthan (July 26, 2012), Aditya Birla Science & Technology Company (ABSTC), Mumbai and Thaluja and Ahura Centre, Mumbai (June 25 – 28, 2012) for the possible collaborative research.
- IndoGulf fertilizer plant for the discussion on short term training program for their employees, December 15 – 17, 2011.
- ICT, Mumbai (March 27 - 28, 2012) and IIT Kanpur (April 23 - 24, 2012) for laboratory infrastructure development as a member of cross campus departmental committee.

• Dr Hare Krishna Mohanta

- Institute of Minerals and Materials Technology (IMMT), Bhubaneswar from 24th May 2014 to 24th June 2014.
- Institute of Minerals and Materials Technology (IMMT), Bhubaneswar during summer 2014 and Hirmi Cenet Works (Ultratech) for PS - 1, during summer 2011.

• Dr Pradipta Chattopadhyay

- CBRI and National Institute of Hydrology, Roorkee, for PS – 1 in Summer 2012.
- Birla White Cement and Shree Cement, Rajasthan in Summer for PS - 1 in Summer 2013.
- IIRS and Wadiya Institute of Himalayan Geology Dehradun, and CPWD Mussouri for PS - 1 in Summer 2015.
- Ultratech Cement, Kovaya and Zaffrabad, Gujarat for PS - 1 to in Summer 2015.

- **Dr Pratik N Sheth**
 - Infflibnet Centre and Bhaskaracharya Institute of Space and Geo-informatics, Ahmedabad for PS - I in Summer 2011.
 - Birla Cellulosic Kharach, Bharuch, Aditya Birla Group Company (June 19 – 24, 2011), Ultra Tech Cement, Kotputli, Rajasthan (July 26, 2012), Aditya Birla Science & Technology Company (ABSTC), Mumbai and Thaluja and Ahura Centre, Mumbai (June 25 – 28, 2012) for the possible collaborative research.
 - TERI Gualpahari campus, Gurgaon in February 2015 to explore the opportunity for R&D colaboration.
 - Biosystems and Agricultural Engineering Department at Oklahoma State University, Stillwater campus from May 27 to July 24, 2015.
- **Dr Banasri Roy**
 - Indian Institute of Technology, Kharagpur during Summer 2013 & 2014 for collaborative work on Fuel cell materials.
 - Tata Institute of Fundamental Research from 6th to 7 th October , 2015 for Collaborative work on Fuel cell materials.
 - Hindalco Industries Limited, Renukoot for PS-I during Summer 2015.
- **Dr Smita Raghuvanshi**
 - Reddipalayam Cements Works, Reddipalayam (March 15 - 16, 2012) and Central Leather Research Institute, Chennai (March 19 - 20, 2012) as part of PS-I enhancement program taken by Practice School Division.
 - ICT Mumbai for one day visit on May 29, 2014. Visited various analytical laboratories & DBT-ICT Center
 - Dept of Pratt School of Engineering, Duke University, US from 6th June - 27th July, 2015 as part of university-immersion (UI) initiative.
- **Dr Sonal Mazumder**
 - School of Material Science and Nanotechnology, jadavpur University between 16-26th December 2014
 - Department of Chemical Engineering, BITS Pilani, Dubai Campus between 18-20 March, 2015 - Curriculum understanding, interdisciplinary project collaborations
 - Century Rayon, Monarch catalyst, PRS Permacel - May 18-July 16, 2015 to explore the opportunities for Practice school, industrial project collaboration.
- **Dr Raman Sharma**
 - The University of Exeter, UK for attending The 2011 International Summer School on Climate Change: Technology and Society (July 16 - August 06, 2011).
- **Dr Ajaya Kumar Pani**
 - Ultratech Cements, Kotputli Cement works, Rajasthan as PS - 1 instructor during summer 2011 and 2012.
- **Mr Utkarsh Maheshwari**
 - Participated in 6th Summer School Programme on “Petroleum Refining & Petrochemicals ” held at Indian Oil Institute of Petroleum Management, Gurgaon organized by Petrotech society, New Delhi in collaboration with Indian Oil Corporation Ltd-R&D and IIPM from 6th to 10th June, 2011 .
 - Attended Industria-Academia workshop on "Refining and Petrochemicals" organised by Dr.B.R.Ambedkar Nationala Institute of Technology, Jalandhar from August 25-28, 2010.

- **Mr Subhajit Majumder**

- Indo-Bharat Rayon, Indonesia (an Aditya Birla Group Unit) to completely familiarize with the manufacturing from 14 to 27 June 2011
- Essar Power, Hazira as PS - 1 faculty during Summer 2012.

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

- **Dr Arvind Kumar Sharma**

- Life Member of Indian Institute of Chemical Engineers (IICChE).
- External examiner for BTech (Chemical Engg.) students at Banasthali University, for MTech Viva, HBTI Kanpur and PhD Thesis Examiner for VNIT Nagpur.

- **Dr Suresh Gupta**

- Member of American Institute of Chemical Engineers, Indian Institute of Chemical Engineers (IICChE), the Institution of Engineers (India) (IEI), International Association of Engineers.
- Fellow of International Congress of Chemistry and Environment (FICCE)
- External Academic Expert Members in Board of Studies (BoS) Constitution for Chemical Engineering, Galgotia University, Noida
- Member of the Board of Studies of Faculty of Bio- and Chemical Engineering, Sathyabama University, Jeppiaar Nagar, Chennai, October – November, 2014
- Member of committee: Chemical Engineering, Pilani local Centre, The Institution of Engineers, Rajasthan Centre (India)
- External examiner for BTech (Chemical Engg.) students at Banasthali University, for MTech Viva, ITM University Gwalior and PhD Thesis Examiner for Bharathidasan University, Tiruchirappalli.
- Reviewer of journals AIChE Journal (Wiley), Industrial Chemistry & Engineering Research (Wiley), Journal of Hazardous Materials (Elsevier), Journal of Environmental Chemical Engineering (Elsevier), Desalination and Water Treatment (Desalination), Process Biochemistry (Elsevier), Journal of Advanced Research (Elsevier), Bioremediation Journal (Taylor and Francis), Journal of Chemical Technology & Biotechnology (Wiley), Applied Water Science (Springer), etc.
- International Conference Committee member for the International Congress on Chemical, Biological and Environmental Sciences, held from January 08 to January 10 in Taipei, Taiwan in 2013.

- **Dr Hare Krishna Mohanta**

- Life Member of Indian Institute of Chemical Engineers (IICChE) and Member of the Institution of Engineers (India).
- Reviewer of journals International Journal of Automation and Control, Journal of Engineering and Computer Innovations.
- External examiner for BTech (Chemical Engg.) students at Banasthali University

- **Dr Pradipta Chattopdhyay**

- Honorary Regional Treasurer, IICChE Pilani Regional Centre. Also former Chairman, IICChE Pilani Regional Centre

- Life Member of The Indian Institute Of Chemical Engineers
- **Dr Pratik N Sheth**
 - Life member of Indian Institute of Chemical Engineers (IChE) and Member of Institution of Engineers (India) (IEI)
 - Reviewer of journals Bioresource technology, Renewable and Sustainable Energy Reviews, Journal of Water Processing Engineering, Biomass and Bioenergy, Journal of Engineering Tribology, Separation Science and Technology, Fuel Processing Technology, Energy Conversion and Management, Journal of Analytical and Applied Pyrolysis, Waste and Biomass valorization.
 - External examiner for BTech (Chemical Engg.) students at Banasthali University
- **Dr Smita Raghuvanshi**
 - Editorial Board Member of Environment & Pollution Journal, Canadian Center of Science & Education, Canada.
 - Member of Indian Institute of Chemical Engineers (IChE), Institution of Engineers (India) (IEI) and International Association of Engineers (IAENG)
 - Fellow Member of Research Journal of Chemistry and Environment (FICCE)
 - Reviewer for journals Journal of Physical Sciences, Biodegradation (Springer), Journal of Food Processing and Technology (OMICS), Nanoscience & Nanotechnology – Asia
- **Dr Banasri Roy**
 - Life Member of Indian Institute of Chemical Engineers (IChE) and Member of Institution of Engineers (India) (IEI).
 - Reviewer of journals Journal of Materials Science: Materials in Electronics, Chemistry of Materials, Materials Science and Engineering B, Journal of Alloys and Compounds, Materials Letters, Solid State Ionics, Powder Technology, Applied Catalysis A, Journal of American Ceramic Society, Ceramic International, Environmental Science and Pollution Research, Industrial & Engineering Chemistry Research, Journal of Renewable and Sustainable Energy
- **Dr Sonal Mazumder**
 - Life member of Indian Institute of Chemical Engineers (IChE)
 - Member of American Chemical Society (ACS), American Institute of Chemical Engineers (AIChE), Materials Research Society (MRS), American Association for Pharmaceutical Scientists (AAPS)
- **Dr Raman Sharma**
 - Life Associate Member of Indian Institute of Chemical Engineers (IChE) and Life member of Indian Society of Technical Education.
- **Dr Ajaya Kumar Pani**
 - Life Associate Member of Indian Institute of Chemical Engineers
 - Reviewer of journals ISA Transactions, Powder Technology, Neural Computing and Applications, Biomedical Signal Processing and Control, Chemical Engineering Communications.
- **Mr Amit Jain**
 - Life Member of Indian Institute of Chemical Engineers (IChE).
 - Member of American Institute of Chemical Engineers (AIChE), International Association of Engineers (IAENG), Institution of Engineers (India) (IEI), Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEES) and International Association of Computer Science and Information Technology (IACSIT) - Applied Chemical Engineering Society (ACES).

- **Mr Subhajit Majumder**
 - Member of American Chemical Society (ACS), American Institute of Chemical Engineers (AIChE), Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES), International Association of Engineers (IAENG), Indian Institute of Chemical Engineers (IChE).
 - Fellow of International Congress of Chemistry and Environment (FICCE).
 - Reviewer of journal Bioremediation.
- **Mr Utkarsh Maheswari**
 - Member of American Institute of Chemical Engineers (AIChE), Indian Institute of Chemical Engineers (LIChE), Institution of Chemical Engineers (IChemE), Society of Petroleum Engineers (SPE), International Association of Engineers (IAENG), Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES), International Association of Computer Science and Information Technology (IACSIT), Institute of Research Engineers and Doctors (IREDD), International Society on Multiple Criteria Decision Making (MCDM);
 - Fellow of International Congress of Chemistry and Environment (FICCE).
 - Reviewer of journals Chemical Engineering Communications, Chemical Product and Process Modeling, Desalination and Water Treatment, Journal of Chemical and Engineering Data, Journal of Environmental Chemical Engineering, Journal of Natural Gas Science & Engineering, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

- **Industry Immersion Program:** An opportunity to spend few weeks to visit Industries within the country to get exposure through the "Faculty Industry Immersion Scheme" during summer vacation.
One (1) faculty member has gone for this program.
- **University Immersion Program:** An opportunity to spend few weeks to visit Universities abroad to get exposure through the "University Immersion Scheme" during summer vacation.
Two (2) faculty members have gone for this program.
- **Intensive Teaching Workshop (ITW)** for new faculty members.
- **Practice School Program** of institute in which the faculty members are encouraged to learn actual industrial practices and to apply them in their teaching & research.
- **National/International Workshops:** Faculty members are attending workshops in different areas on regular basis to keep themselves updated with the latest in the field. They are supported by Rs. 1 Lakhs per year special contingency grant for the same.
- **Mentoring** of new faculty by the senior faculty colleagues.
- **One year Sabbatical** every 5 years.
- **Outstanding Potential for Excellence in Research and Academics (OPERA) award:** One faculty member has received this award
- **Research Initiation Grant:** New faculty members are provided initiation grant of Rs.

2 Lakhs for starting their research work. List of Research initiation grant received by faculty members in last five years are given below:

S No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Experimental and Theoretical Studies on Liquid – Liquid Equilibrium of Aromatics + Aliphatics + Ionic Liquids	Dr. Sushil Kumar	BITS, Pilani	2.00	2011-12
2	Determination of Foaming Properties of Aqueous Ethanol Solution Using Industrial Surfactant Sodium Lauryl Sulfate	Dr Pradipta Chattopadhyay	BITS, Pilani	2.00	2011-13
3	Characterization of Bio-oil produced via Pyrolysis of Jatropha Cake Residue	Dr Pratik N Sheth	BITS, Pilani	2.00	2011-13
4	Experimental studies of Bio-mitigation of CO ₂	Dr Smita Raghuvanshi	BITS, Pilani	1.20	2011-13
5	Developing Metal Doped Bismuth Vanadate (BIMEVOX) Systems for Fuel Cell and Catalytic Applications	Dr Banasri Roy	BITS, Pilani	2.00	2013-15
6	Synthesis and characterization of polymeric nanoparticles for applications in oral drug delivery	Dr. Sonal Mazumder	BITS, Pilani	2.00	2013 – 15

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects : **100% (Approx)**
- percentage of students doing projects in collaboration with other universities /industry / institute
All (100%) the first degree (BE) and higher degree (ME) students undergo Practice School Program. Around 3% of students undergo the off-campus thesis/dissertation program.

29. Awards / recognitions received at the national and international level by

Faculty Doctoral / post doctoral fellows Students

Dr Arvind Kr Sharma

- Chaired a session on Green Chemistry in International Conference on Sustainable Manufacturing: Issues, Trends and Practices, November 10 -12, 2011 (ICSM-2011), BITS Pilani.

- Chairperson of 8th Annual Session of Students' Chemical Engineering Congress (SCHEMCON - 2012), Sept. 21-22, 2012, Pilani, India and National Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE – 2012), March 23-24, 2012, Pilani, India.
- **Dr Suresh Gupta**
 - Invited Distinguished Speaker, “Computational Heat Transport” and “Separation Processes”, Staff Development Programme on Innovative Teaching Techniques for Transport Phenomena organized by ITM University, Gwalior, July 12-17, 2010.
 - Invited Distinguished Speaker “Bioremediation: Heavy Metals Removal from Wastewater” in the Short Term Course on Water Pollution and Wastewater Treatment (WPWT – 2015) during January 27 – 31, 2015, Organized by Department of Chemical Engineering & Civil Engineering, MNNIT, Allahabad.
 - Awarded Travel Grant by CICS Chennai and CSIR New Delhi in 2013 to attend conference abroad
 - Dr. Suresh Gupta was an Invited Member in A day long workshop to review the existing scheme of the Engineering Services Examination conducted by the Commission organized by UPSC at the International Management Development Centre (IMDC) Indian Institute of Management, Vastrapur, Ahmedabad on the 3rd of October, 2013.
- **Dr Pratik N Sheth:**
 - Awarded Travel Grant by CSIR New Delhi in 2011 to attend conference abroad
- **Dr Smita Raghuvanshi:**
 - Awarded Travel Grant by CICS Chennai in 2013 to attend conference abroad.
- **Dr Banasri Roy:**
 - Visiting Scientist Fellowship 2014-15 from Indian National Science Academy (INSA) for collaborative work with IIT-Kharagpur
- **Mr Amit Jain:**
 - Awarded foreign travel grant by CSIR and CSIS Chennai for attending 2013 American Institute of Chemical Engineers (AIChE) Annual Meeting, San Francisco, California, USA during November 3-8, 2013.
- **Mr Subhajit Majumdar:**
 - Awarded 1st Prize in the paper presentation on “Bioremediation growth kinetics of Cr(VI) contaminated aqueous solution using Pseudomonas sp., an indigenous microbial strain isolated from aerobic mixed culture” in 2014 1st International Congress on Environmental, Biotechnology, and Chemistry Engineering (CEBCE 2014), SAISE, Pride Hotel, Pune, India, February 21-23, 2014.
- **Mr Utkarsh Maheswari**
 - Chaired a session on "New process technologies & Adsorption technology" held during the 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr, SSB

University Institute of Chemical Engineering & Technology, Chandigarh, 27-30 December 2014

- Delivered a lecture on "The Importance of Water" at Regional Science Congress, 2014 organized by Jawahar Navodaya Vidyalaya, Kajra, Jhunjhunu on 11th November, 2014
- Awarded travel grant from Centre for International Co-operation in Science (CICS) to attend 2013 AIChE Annual Meeting held at Hilton San Francisco Union Square, San Francisco, CA during November 3 – 8, 2013
- Chaired a session in 5th International Congress of Chemistry and Environment (ICCE-2011), Glory Beach Resort, Port Dickson, Negeri Sembilan, Malaysia, May 27-29, 2011

Doctoral / post doctoral fellows

- Mr. Somesh Mishra awarded Senior Research Fellow by CSIR, New Delhi
- Mr. Saswat Kr Pradhan and Ms. Neha Chomel are awarded the UGC-BSR Fellowship.
- Mr. Tapas Kr Patra and Mr. R. Arun Karthick are awarded the Junior Research Fellowship in DST Sponsor projects.

Students

- The team of three BE Chemical Engineering students i.e. Mr Shubham Jain, Mr Varun Patel and Mr Abhishek Ranade and a faculty guide Dr Pratik N Sheth secured 4th position in the Grand Finale of iNSCRIBE 2014 organized by BOSCH on 16th & 17th December, 2014 at Bangalore.
- Paper entitled "Optimization of parameters (pH & temperature) for CO₂ mitigation using isolated species from Sambhar Lake" was the only poster selected from BE students (Kaushik Raj & Piyush Chauhan) in the entire conference of Bioprocessing India -2014 held as ICT Mumbai from Dec 17-20, 2014, jointly organised by ICT Mumbai & IIT, Bombay Mumbai.
- **The Lakshmi Memorial Award**
 - Mr. Ayush Kanwar (2010-11), Ms. M. Usha (2011 – 12), Mr. Neeraj Agarwal (2012 – 13), Mr. Kaushik (2013 – 14), Mr. Kota Vishal (2014 – 15)
- **The Tres Bien Award**
 - Mr. Abhishek Aggarwal (2010 – 11), Ms. Rubal Mittal (2011 – 12), Mr Sundeep Pothula (2012 – 13), Mr. Khantesh Aggarwal (2013 – 14), Mr. Perla Kishore (2014 – 15)
- **Alumni award**
 - Mr. Ali Hussain and Ms. Marunmayi (2010 – 11), Mr. Ravi Shankar (2011 – 12), Mr Soumavo and Mr Harsh (2012 – 13), Mr. Irvinder Noor Singh (2013 – 14), Mr. Bhawarth sangwan (2014 – 15)
- **R P Vaid Award**
 - Ms. U. Amita (2010 – 11), Mr. Ayush Kanwar (2011 – 12), Mr. Jasneet Singh (2012 – 13), Mr. Bhawarth Sangwan (2013 – 14), Mr. Kaushik Raj (2014 – 15)
- **Monali Dey Memorial Award**
 - Mr. Prabhav Joshi and Ms. Ankita Lohumi (2010 – 11), Mr. Raghav Mimani (2011 – 12), Mr Prateek, Mr Nitish and Mr Ayush (2012 – 13), Mr. Jalaj Jain and Mr. Avinash Upadhyay (2013 – 14), Mr. Rohit kumar and Mr. Neeraj agarwal (2014 – 15)

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

- **Technological Advancements in Chemical and Environmental Engineering (TACEE – 2012)** (Funding from CSIR, UGC-DRS-SAP, BITS Pilani)
- **Students Chemical Engineering Congress (SCHEMCON – 2012)** (Funding from DST, CSIR, GAIL, HZL, GNFC, STEEL CASE, BIRLA WHITE, RIL Dahej, Indo Gulf Fertilizers, Innovent Engg Solutions, Appex Innovations, Zuari Holdings, S N Scientific, Varun Industries, and Regional Centres of IChE at Kolkata, Mumbai, New Delhi, Baroda, Ankaleswar, Chandigarh)
- **Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE – 2013)** (Funding from SpectraLab Instruments Ltd, Mass International, Toshwin analytical Ltd, Varun Industries, S N Scientific Industries Ltd., Arewa Systems and Consultancy, D K Scientific Pvt Ltd)
- **Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE – 2015)** (Varun Industries, Mass International, Orbit Research Associates, Indfurr Superheat, Toshwin Analytical, S N Scientific Industries Ltd., Areva Systems and Consultancy, Avra Synthesis)

31. Code of ethics of research followed by the Department.

"The department follows the code of ethics specified by the Institute". The Institute code of ethics is detailed in the SSR

32. a) Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Year	Applications received/Selected (Total)	Selected		Pass percentage	
			Male	Female	Male	Female
BE (Hons) Chemical Engineering	2010-11	139234 / 14662	46	12	100	100
	2011-12	123677 / 12880	51	10	100	100
	2012-13	136904 / 15714	48	12	NA	NA
	2013-14	166260 / 15120	58	09	NA	NA
	2014-15	186181 / 18717	61	10	NA	NA
ME Chemical Engineering & ME Chemical Engineering with specialization in Petroleum Engineering	2010-11	4428 / -	08	05	100	100
	2011-12	4571 / -	06	03	100	100
	2012-13	4825 / -	07	03	100	100
	2013-14	5549 / -	10	03	100	100
	2014-15	5172 / -	12	12	NA	NA
PhD	2010-11	-	-	-	NA	NA
	2011-12	07	2	1	NA	NA
	2012-13	11	-	-	NA	NA
	2013-14	12	1	1	NA	NA
	2014-15	10	1	2	NA	NA
B S Process Engineering	2010-11	-	87	1	80.46	100
	2011-12	-	-	-	-	-
	2012-13	-	146	02	100	100
	2013-14	-	134	04	NA	NA
	2014-15	-	84	01	NA	NA

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
BE (Hons) Chemical Engineering	NA	NA	NA	NA
ME Chemical Engineering & ME Chemical Engineering with specialization in Petroleum Engineering	NA	NA	NA	NA
PhD	37.5	-	62.5	-
B S Process Engineering	NA	NA	NA	NA

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Civil Services: **01*** (As per information available)

GATE: **05*** (As per information available)

*More students have participated and cleared these exams. However we don't maintain such data.

35. Student progression

Student progression	Percentage against enrolled (2010 – 2014)
UG to PG	25 to 30% (Approx)
PG to M.Phil.	NA
PG to Ph.D.	10 to 15% (Approx)
Ph.D. to Post-Doctoral	-
Employed <ul style="list-style-type: none"> ○ Campus selection ○ Other than campus recruitment 	84.8% (BE), 53.33% (ME) 15.2% (BE), 46.67% (ME)
Entrepreneurs	NA*

*We do not maintain such data.

36. Diversity of staff

Percentage of faculty who are graduates (Highest Degree)	
of the same university	66.67
from other universities within the State	NIL
from universities from other States	16.67
from universities outside the country	16.67

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Six (6)

38. Present details of departmental infrastructural facilities with regard to

b) Library

There is no departmental library. All the text books, reference books, research journals, hard and soft resources are available in the Central Library of the Institute. Department has representation in the library committee, who sees to it that the requirements of the department are systematically addressed.

c) Internet facilities for staff and students

This is provided centrally by the institute across the campus to all staff and students.

d) Students' laboratories

- **Chemical Engineering Laboratory – I** (Includes approximately 35 – 40 experiments of Heat Transfer, Mass Transfer, and Fluid Mechanics)
- **Chemical Engineering Laboratory – II** (Includes approximately 35 – 40 experiments of Reaction Engineering, Mechanical Operations, and Process Control)
- **Petroleum Engineering** (Includes approximately 15 – 20 experiments such as Aniline Point, Cloud and Pour Point, Flash Point, Melting Point, Drop Point, Smoke Point, Carbon Residue Conradson, Carbon & Sulphur Determination, Softening Point of Bitumen, etc.)
- **Computer Aided Design Laboratory** (Includes the software packages such as Aspen HYSYS, Fluent, COSMOtherm, MATLAB, etc.)

e) Research laboratories

- **Analytical** (Includes analytical instruments such as AAS, FTIR, DSC, TGA, HPLC, GC, BET Surface area analyzer, Volume Trace Analyzer, Centrifuge, Dynamic Foam Analyzer, Ion meter, Rotavapor etc.)
- **Environmental Engineering** (Includes the facilities such as BOD Incubator shakers, Laminar flow chambers, Auto Titrator, Temperature Controlled

Shakers & Shaker Bath, Millipore Distilled Water unit, Fume Hood, Magnetic Stirrer, etc.)

- **Research** (Includes the facilities such as Continuous Adsorption Set-up, Biofilter Column Set-up, Biomass Gasifier, Pyrolysis Unit, Reactive Distillation Set-up, CSTR Unit, Fluidized Bed Pyrolysis Unit, Fixed Bed Reactor etc.)
- **Process Control** (Includes the facilities such as PCT – 40, PCT -13, PCT – 11, etc.)

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university

S No	Name
1.	Neha Chomal
2.	Somesh Mishra
3.	Saswat Kr Pradhan
4.	Tapas Kumar Patra
5.	Maulick Chopra
6.	Shweta Sharma
7.	R. Arun Karthick
8.	Roshan Chandra
9.	Santosh Sopanrao Khandgave
10.	Vijay Singh Pundir

b) from other institutions/universities

S No	Name
1.	Rajeev Sharma
2.	Kapinder Phogat

40. Number of post graduate students getting financial assistance from the university.

ME Chemical Engineering: **44** (Stipend or Fee waiver)

PhD: **08** (Stipend + Fee waiver) and **01** (Fee waiver)

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

During the assessment period, there was no such exercise. However, following methodology is adapted while developing a new program.

- Based on the emerging areas and market forces, brainstorming sessions are held across the university.
- Outcomes of such discussions along with the existing structure of related programs available in the reputed national/ international institutions, are translated into the form of a curriculum for the program.
- Program thus design is discussed with the management and the stakeholders and their inputs/ suggestions are used to fine tune the program.
- The final proposal is submitted and processed as per the guidelines of the university.

42. Does the department obtain feedback from**i. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? : Yes**

- Inputs from faculty on all the above aspects are continuously sought through regular meetings.
- These feedbacks are debated and based on the consensus, the corrective measures are taken.
- For instance, rephrasing the syllabus, changing/updating the text/reference books, fine tuning the handouts, modifying and bringing innovative ideas in evaluation, etc., are implemented dynamically semester by semester.

ii. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? : Yes

- 24x7 online feedback and a dedicated end-of-the-semester feedback are collected. Also, the 'Student Faculty Council' is in place for seeking the feedback from the students and that gives the ideas regarding the scope of improvement w.r.t. the above aspects and the faculty too.
- These inputs are shared, discussed and corrective actions are taken in the similar manner as said above.
- Issues related to faculty as a person are amicably addressed, respecting the self respect of an individual.

iii. alumni and employers on the programmes offered and how does the department utilize the feedback? Yes

- Every year during the golden jubilee reunion and silver jubilee reunion, BITS alumni visit the campus and also the department. Some alumni give a talk also on their expertise for the benefit of the fellow BITSIANs. The faculty members also discuss with them about the various avenues by which present department facilities and curriculum can be revised.
- In the similar manners, Placement Feedback Assessment Committee (PFAC) seeks the feedback from the employers who visits the campus placement.
- These feedbacks, like other aspects, are debated at various levels and corrective measures are taken change/improve/fine tune the programs.

43. List the distinguished alumni of the department (maximum 10)

S No	Name and current designation	Degree/ Year passed out	Designation/Role
1	Rakesh Kapoor	BE in Chemical Engineering/1980	Chief Executive of Reckitt Benckiser plc, a UK FTSE-listed multinational consumer goods company, a major producer of health, hygiene and home products.
2	S.P. Kothari	B.E. Chemical Engineering /1979	Deputy Dean and Gordon Y Billard Professor in Management, Sloan School of Management, Massachusetts Institute of Technology
3	Mani Shankar	B.E. Chemical Engineering/ 1978	Bollywood director, holographic technology expert, writer and speaker
4	Lakshminarayanan Samavedham	B.E. Chemical Engineering/ 1988	Associate Professor, Dept. of Chemical and Biomolecular Engineering National University of Singapore

5	D. P. Rao	PhD chemical Engineering/1974	Professor Department chemical engineering, IIT Kanpur
6	Suneel Gupta	B.E. Chemical Engineering/ 1989	Director-Sales & Marketing at Magna Powertrain India
7	Aditya Shrivastava	B.E. Chemical Engineering/ 1983	Director General -Birla Research Instt. for App. Sciences & Head- Excel Fibre Unit at Grasim - Aditya Birla Group
8	Amitava Babi Mitra	PhD chemical Engineering/1986	Founder Dean, School of Engineering and Technology BML Munjal University
9	Suresh Krishnan	BITS Pilani BE,MS, Chemical Engineering, Economics 1981 – 1986	Managing Director Zuari Global Limited
10	U. Naresh Kumar	B.E. Chemical Engineering	Chief Operating Officer at GMR Industries Ltd.

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

The department conducts seminars/workshops from time to time as a part of student enrichment program. In the last five years the department has conducted TACEE-2012, SCHEMCON-2012, WAICEE-2013 and WAICEE-2015, where the experts from Industry and Academia have delivered Keynote and Expert Lectures. Also experts are invited during every annual technical event called as APOGEE (A Professional Oriented Gathering over Educational Experience). Apart from all this, invited talks are arranged on regular basis.

45. List the teaching methods adopted by the faculty for different programmes.

A few of such methods are listed below:

- Chalk/pen and board
- Power point with animations
- Seminars/presentations
- Group discussions
- Group problem solving
- Case studies/assignments
- Hands-on exercises on analytical instruments, software packages, etc.
- Projects
- Online resources
- On-line video lectures and visits to the organizations under the Work Integrated Learning Programs (WILP)
- Tele-presence class room through which all four campus students can be taught live by one instructor using various tools such as power point presentation, document camera, etc.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Departmental Committee on Academics (DCA) and Departmental Research Committee (DRC) focus on various aspects of academics and research respectively. On regular basis, these two bodies meet, discuss, and help the department to ensure that all the issues related to teaching and research are systematically addressed.

Student Faculty Council (SFC) and Placement Feedback Assessment Committee (PFAC) reinforced DCA and DRC in order to see that the program objectives are constantly met and the expectations w.r.t. learning are monitored.

Every faculty member has to prepare a handout for at least 40 lectures covering the whole syllabus and this is given to the students in the first class of the course. Also, all evaluation components with their breakups and Text Book(s) are mentioned in it. It is mandatory for the faculty member to complete the whole syllabus. One has to compensate for the lost classes by taking make-up and extra classes.

The students give anonymous feedback about the course at the end of the semester. Also there is a 24x7 Feedback System using which a student can give feedback/comments about the instructor and his course throughout the semester.

There is a Student Faculty Council (SFC) which comprises of 4/5 faculty members and 2/3 student representatives from each batch of students. The council meets time to time where the students freely give feedback to improve the teaching in the current semester. All the constructive suggestions of the students are compiled in the form of the Minutes of the meeting and circulated to all faculty members of the department for necessary improvement in the respective courses.

There is another Institute level committee called the PFAC (Placement Feedback Assessment Committee) where at least two faculty members from each department are the members. The faculty members interact with the personnel from the recruiting company and get their feedback on our students. The message is passed on to the department for necessary action.

47. Highlight the participation of students and faculty in extension activities.

- Students and faculty members, on regular basis, visit various industries like Panipat Refinery, IOCL R & D centre at Faridabad, etc.
- Students are participating in various national and international level seminar/competitions of paper presentation/working model demonstrations such as Students' Chemical Engineering Congress (SCHEMCON), technical festivals organised by BITS & other institutions, Shell Challenge, BOSCH inscribe etc.
- Students are also organizing various events such as design competition and quiz events under the banner of students' chapter of IICHe – Pilani regional centre.
- Students showcase their professional acumen by developing working models focusing on latest aspects of technology, in an event called as APOGEE (A Professional Oriented Gathering over Educational Experience).

- Students, through NSS, are involved in teaching and training children from less privileged background.
- Faculty contribute in writing chapters, notes, lab manuals, etc. and also participate in training faculty members from other institutions through Intensive Teaching Workshop (ITW).

48. Give details of “beyond syllabus scholarly activities” of the department.

- Our department has a Students’ Chapter of Indian Institute of Chemical Engineers (IICChE) which conducts various events where students from other institutes take part on solving some industrial problems. Problems are generally design-based and are collected from the Industries.
- Also the department conducts seminars and workshops from time to time. In the recent past we have conducted TACEE-2012, SCHEMCON-2012, WAICEE-2013 and WAICEE-2015.
- The annual technical event APOGEE is one platform where the students are required to exhibit their technical knowledge in terms of working model, non-working model, mathematical modelling and simulations and paper presentations. Each one of these go through reviews by students as well as the faculty members.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- The faculty members are conducting excellent teaching and research, which has led to good quality publications of many research articles and books/book chapters.
- In some of the areas they have contributed are: Soft sensors for industrial processes, Bioremediation for heavy metals, Bio-fuels, CO₂ mitigation, Nano-catalysts for hydrogen production, Nano-particles for drug delivery systems, etc.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

- Students opting for our programme are of finest quality as admission is based purely on merit.
- Young, dynamic and promising faculty members working in diversified research areas.
- Our curriculum has been recently benchmarked against national and international institutions/universities such as MIT, Caltech, NUS, IIT Kanpur, IIT Bombay, and ICT Mumbai in 2011.
- Established UG & PG laboratories and research infrastructure for conducting high quality research.
- Department is involved in work integrated learning programmes (WILP) of institute for various industries such as Hindustan Zinc Limited, Tata Chemicals, Aditya Birla Group – Cement Business etc.

Weaknesses

- There is a need to approach to the industries for research and consultancy.
- More research funding opportunities and agencies need to be identified and approached.
- Although the department is involved in the WILP for a quite a long time, very few projects or funding from the industries are granted.

Opportunities

- Institute is promoting inter disciplinary and collaborative research and faculty members have geared up to tap this opportunity.
- To promote industrial research and knowledge exchange, Institute has started a scheme of Industry immersion, which allows the faculty member to stay for 8 to 10 weeks in the industry.
- To promote the international exposure, Institute has started a scheme of University immersion, which allows the faculty member to visit abroad and stay in foreign university for 8 to 10 weeks.
- Faculty members can also avail the sabbatical leaves for one year or so and work in the industry/research institute/university.
- Faculties are from diverse backgrounds which helps them to form various interdisciplinary research groups and create avenues to work together

Challenges

- Due to opening of new IITs and focusing on research by other private institutes, the major challenge department may have to face is of human resources.
- To retain excellent faculties and get good ME and PhD students are going to be the challenges in near future.

52. Future plans of the department.

- Fine tuning of curriculum on regular basis
- Reinforcing the courses
- Floating new courses and electives
- Modernization and expansion of laboratories
- Expansion of analytical and CAD facilities
- Improving safety and security practices in laboratories
- Motivating master's students to research
- Organizing conferences and workshops
- Pro-active steps for sponsored R & D leading to projects and funding
- Quality publications/patents
- Improving student-faculty interaction

53. Any other information regarding your department which you would like to include.

- Invited talks by the faculty members at different platforms to share the knowledge and experience with other people.
- Faculty members attend various international/national conferences/workshops on a regular basis and present their research work. They also visit to other institutes/organizations/ labs for further enhancing the collaboration in research.

- Utilization of department facilities is extended to other departments within institute and to other nearby institute.

PILANI Campus: Evaluative Report of the Department CHEMISTRY

1. **Name of the Department:** Chemistry
2. **Year of establishment of the Department:** 1964
3. **Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D. Sc., D. Litt., etc.).**

M.Phil., Ph.D., Integrated Masters: M.Sc (Hons) Chemistry
5. **Interdisciplinary programmes and departments involved** NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons:** NIL
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**
Thermodynamics (BITS F111), Structure Properties & Materials (ES C242)

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	04	04
Associate Professors		05	05
Asst. Professor		08	08
Others		01	01

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./Ongoing completed students guided for the last 4 years
Dr. S. C. Sivasubramanian	Ph. D.	Professor	Physical Chemistry/Electron Paramagnetic Resonance	23 years 7 months	01
Dr. Subit Kumar Saha	Ph. D.	Professor	Physical Chemistry/Soft Matter	15 years 9 months	03
Dr. Ram Kinkar Roy	Ph. D.	Professor	Physical/Theoretical Chemistry	14 years	03
Prof. Dalip Kumar	Ph. D.	Professor	Synthetic Organic and Medicinal Chemistry	18 years 5 months	04
Dr. Anil Kumar	Ph. D.	Associate Professor	Organic/Medicinal Chemistry	9 years 5 months	08/03
Dr. Ajay Kumar Sah	Ph. D.	Associate Professor	Inorganic Chemistry/Catalysis/Biochemistry	8 years 3 months	03
Dr. Bharti Khungar	Ph. D.	Associate Professor	Inorganic Chemistry	8 years	01
Dr. Saumi Ray	Ph. D.	Associate Professor	Materials/Inorganic Chemistry	10 years	02
Dr. Inamur Rahaman Laskar	Ph. D.	Associate Professor	Materials and Inorganic Chemistry	8 years 7 month	02
Dr. Surojit Pande	Ph. D.	Assistant Professor	Inorganic/Materials Chemistry	3 years 6 months	02
Dr. Shamik Chakraborty	Ph. D.	Assistant Professor	Physical Chemistry	3 years 2 months	0
Dr. Bibhas Ranjan Sarkar	Ph. D.	Assistant Professor	Catalysis/ Materials/ Inorganic Chemistry	2 years 1 month	01
Dr. Indresh Kumar	Ph. D.	Assistant Professor	Organic synthesis and organo-catalysis	6 years 2 months	04
Dr. Madhushree Sarkar	Ph. D.	Assistant Professor	Supramolecular Chemistry and Crystal Engineering	6 years 7 months	02
Dr. Paritosh Shukla	Ph. D.	Assistant Prof	Organic and medicinal chemistry	14 years 2 months	02

Dr. Rajeev Sakhua	M.Phil, Ph. D	Assistant Professor	Organic & Medicinal Chemistry	3 years 5 months	03
Dr. Prashant U. Manohar	Ph. D.	Assistant Professor	Theoretical and Computational Chemistry	6 years 1 month	01
Mr. C. R Siju	M. Sc.	Lecturer		5 years	

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

- (i) Prof. Ram S. Mohan visited dept. of chemistry, BITS Pilani, Pilani campus as Fulbright-Nehru Visiting Fellow.
- (ii) Prof. R. S. Verma, EPA, OHIO State University, USA (Adjunct faculty)

13. Percentage of classes taken by temporary faculty – programme-wise information: NIL

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)

M.Sc (Hons) Chemistry : 45.4:1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Year	Sanctioned	Filled	Actual
2010-2015			Technical staff – 02 Administrative staff -02 Helping staff -02

16. Research thrust areas as recognized by major funding agencies

Trust Areas	Recognized by
<ul style="list-style-type: none"> • Organic and Medicinal chemistry • Theoretical and Computational Chemistry • Photochemistry • Green Chemistry and Catalysis 	DST-FIST, New Delhi
<ul style="list-style-type: none"> • Synthetic Chemistry & Materials Science • Computational Chemistry 	UGC-SAP, New Delhi

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed projects:

SL No	Project Name	Ref. No.	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Year	Duration
1	Study on physicochemical and interfacial properties of some mixed micellar systems of novel Gemini and conventional surfactants in water and water-organic solvent mixed media	Letter dated 17/10/2011	Dr. S.K. Saha	Aditya Birla Group	10	2011	2011-13
2	Probing Twisted Intramolecular Charge Transfer Fluorescence to Characterise the Micelles of Some Gemini Surfactants	33-257/2007 (SR)	Dr. S.K. Saha	UGC, Major	8.438	2008	2008-11

3	Twisted Intramolecular Charge Transfer (TICT) Fluorescence Probing Studies of Micropolarity and Microviscosity of Different Types of Gemini Micelles	01(2213)/08/EMR-II	Dr. S.K. Saha	CSIR, Major	11.405	2008	2008-12
4	An extensive computational development of multi-reference coupled-cluster methods for electronic structure investigations of big molecules	SR/FT/CS-18/2011	Dr. Prashant Uday Manohar	DST, Fast Track	22.4	2012	May 2012-August 2015
5	Crystal Engineering of Metal-Organic Frameworks using Organic Linkers derived from Template-Controlled Solid-State Reactions	SR/FT/CS-24/2011	Dr. Madhushree Sarkar	DST	23.4	2012	May 2012-August 2015
6	Synthesis and Detailed Characterization of 'Ship-in-a-Bottle' Complexes inside the Microporors and Mesoporous Material	SR/FT/Cs-038/2010	Dr. Saumi Ray	DST	20	2010	2010-2014
7	Syntheses of Pt(II) based pure blue emitting triplet harvesting materials and their application in white organic light emitting diodes as single emissive dopands	01/2551/12/EMR-II	Dr. Inamur Rahaman Laskar	CSIR	20	2012	2012-2015
8	Syntheses of Efficient and Pure Blue Triplet Emitting Materials for Fabrication of White Organic Light Emitting Diodes (WOLEDs)	SR/S1/IC-48/2009	Dr. Inamur Rahaman Laskar	DST	22.2	2010	2010-2013
9	Transition metal-catalysed Coupling/Reductive Coupling of Saturated Alkyl halides with Electron Withdrawing Alkenes	41-289/2012(SR)]	Dr. Paritosh Shukla	UGC	11.95	2012	July 2012-8/1/2015
10	Synthesis and Catalytic Applications of Environmentally Benign Ionic Liquid Tagged Schiff Base Metal Complexes	SR/FT/CS-040/08	Dr. Bharti Khungar	DST India	19.47	2009	2009-12
11	Size-Dependent Hydrogenation Catalysis with Mono- (Pd and Pt) and Bimetallic (Pd@Pt) Nanoparticles in Quantum Dot Region	No.F.20-1(21)/2012(B SR)	Dr. Surojit Pande	UGC	6	2013	08-03-2013 to 07-03-2015
12	Synthesis and Detailed Characterization of 'Ship-in-a-Bottle' Complexes inside the Microporors and Mesoporous Material	SR/FT/Cs-038/2010	Dr. Saumi Ray	DST	20	2010	2010-2014

13	Novel α -Amino, α -Aminoxy and α -Hydrazino acids Linked Bio-conjugates: Design, Synthesis and Biological Evaluation	F.20-2(21)/2012(B SR)	Dr. Rajeev Sakhuja	UGC	6	2013	08-03-2013 to 07-03-2015
14	Design and Synthesis of Novel Bioactive Heterocycles as Anticancer	01(2398)/10/EMR-II	Dr. Dalip Kumar	CSIR	13.58	2011	2011-2014
15	Design, Synthesis and Biological Studies of Novel Cationic Porphyrin Hybrids as Potential Anticancer Agents	SR/S1/OC-77/2006	Dr. Dalip Kumar and Dr. Anil Kumar	DST	27.5	2007	2007-2011
16	Design, Synthesis and biological evaluation of indol-based heterocycles as anti cancer agents.	40-103/2011(SR)	Dr. Dalip Kumar	UGC	7.51	2011	2011-2014
17	UGC-BSR Start-up grant for newly recruited faculty at Assistant Professor level in science department.	20-8(21)/2012(B SR)	Dr. Shamik Chakraborty	UGC	6	2013	2013-2015
18	Organocatalysis as green approach for synthesis of pyrrolidine/fused pyrrolidine: towards the synthesis of related alkaloids	SR/FTP/CS-109/2011	Dr. Indresh Kumar	DST	21.9	2012	2012-2015
19	Synthesis of carbohydrate-amino acid containing novel ligands: Metallochemistry and reactivities of their metal complexes	SR/FTP/CS-56/2007	Dr. Ajay K. Sah	DST	19.536	2008	2008-2011
20	Conceptual Density Functional Theory Based Modeling of Biomolecular Systems	SB/S1/PC-067/2013	Dr. Ram Kinkar Roy	DST	24.52		
21	Novel synthetic methodologies for biologically important compounds using lanthanide triflates as Lewis acids in ionic liquids.	F. No. 39-733/2010 (SR)	Dr. Anil Kumar	UGC	8.77	2011	01-02-2011 - 31-01-2014
22	Synthesis of novel ionic liquid supported reagents and their use in various organic transformations under eco-friendly conditions.	01(2214)/08/EMR-II	Dr. Anil Kumar	CSIR	16.32	2008	01-07-2008 - 31-03-2012
23	Novel safety catch linkers for solid phase synthesis of organic compounds with potential medicinal applications.	SRF/FTP/CS-34/2007	Dr. Anil Kumar	DST	19.54	2007	29-09-2007 - 19-09-2010

Total completed project amount: Rs. 366.45 lacs

A. Ongoing projects:

SL No	Project Name	Ref. No.	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Year	Duration
1	Design and Syntheses of Heavy Metal based Aggregation Induced Emission Active Complexes and their Application in Bio-imaging	SB/S1/IC-13/2014	Dr. Inamur Rahaman Laskar	DST	35.9	2014	2014-2017
2	Design of Synthetically Tunable Azino-fused Chromene Conjugates as Potential Organogelators.	SB/FT/CS-033/2012	Dr. Rajeev Sakhuja	DST-SERB	24.7	2013	12-07-2013 to 11-07-2016
3	Organocatalytic approach towards bioactive important six-membered nitrogen heterocycles	PLN/AD/2014-15/June/02	Dr. Indresh Kumar	BITS Pilani	8.2	2015	2015-17
4	Synthesis, Metallochemistry and Reactivities of D-Glucose derived Glycoconjugates	F.No.42-272/2013(SR)	Dr. Ajay K. Sah	UGC	9.13	2013	2013-2016
5	Synthesis, characterization and application of novel ionic liquid supported metal complexes	F.No. 42-288/2013 (SR)	Dr. Bharti Khungar	UGC, India	13.408	2013	2013-2016
6	Synthesis and Characterization of (Metal Oxide)core - Metalshell Nanoparticles in Quantum Dot Region and Their Application in Electrocatalysis.	SB/FT/CS-042/2012	Dr. Surojit Pande	DST-SERB	24.93	2013	23-08-2013 to 22-08-2016
7	Design of Synthetically Tunable Azino-fused Chromene Conjugates as Potential Organogelators.	SB/FT/CS-033/2012	Dr. Rajeev Sakhuja	DST-SERB	24.7	2013	12-07-2013 to 11-07-2016
8	Synthesis of Novel N,O,S containing heterocycles and evaluation of their anticancer activities	BT/278/NE/TB P/2011	Dr. Dalip Kumar	DBT	54.38	2013	2013-2016
9	Design and synthesis of Porphyrin-based photosensitizers as anticancer agents Supported by the India-Japan Science Council under DST-JSPS S&T Programme of Cooperation.	DST/INT/JSPS/P-185/2014	Dr. Dalip Kumar	DST-JSPS	4.5	2014	2014-2016
10	Novel synthesis of anti-HIV agents		Dr. Dalip Kumar and Dr. Anil Kumar	Ranbaxy	27.5		3 years

11	Exploration of novel ionic liquid-supported sulfonyl reagents for organic synthesis	02(0115)/13/E MR-II	Dr. Anil Kumar	CSIR	16.12	2013	April 2013-March 2016
12	Competition between charge transfer and proton transfer processes in some newly designed Schiff Bases: Spectroscopic and theoretical investigations in condensed Phase	SB/FT/CS-106/2013	Dr. Shamik Chakraborty	DST	24.98	2013	201
13	Development and application of density functional reactivity theory based modeling techniques to understand the energetic of reactive and non-reactive interactions	SB/S1/PC-067/2013	Dr. Ram KinkarRoy	DST	32.55	2014	2014-2017

Total ongoing project amount: Rs. 301 lacs. Total number of projects: 36; Total money received: Rs. 667.45 lacs

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration

- Synthesis of novel N, O, S-containing heterocycles and evaluation of their anticancer activities from DBT (Investigator: Prof. Dalip Kumar in collaboration with Prof. Okram Mukherjee Singh of Manipur University, Imphal), Project grant 54.38 lakhs.

b) International collaboration

- Design and synthesis of Porphyrin-based photosensitizers as anticancer agents Supported by the India-Japan Science Council under DST-JSPS S&T Programme of Cooperation. (4.5 lakhs)

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Funding Agency	Project/ Total Grant received
Department of Science and Technology (DST), New Delhi [SR/FST/CSI-174/2008]	DST-FIST (86.00 Lakhs)
University Grant Commission (UGC), New Delhi [540/14/DR/2007(SAP-1)]	UGC-SAP Phase-I Program (35.00 lakhs)

20. Research facility / centre with

- **State Recognition:**
- **National Recognition:** We have the facility of 400 MHz NMR spectrometer.
- **International Recognition:**

We assume that all the facilities are state, national and internationally recognised.

21. Special research laboratories sponsored by / created by industry or corporate bodies : Nil

22. Publications:

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	182
2	Monographs	
3	Chapters in Books	01
4	Edited Books	03
5	Books with ISBN with details of publishers	
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	182
7	Citation Index – range / average	
8	SNIP	0.044-2.264, Avg = 0.9409
9	SJR	0.141-2.63, Avg.= 0.9512
10	Impact Factor – range / average	Max. IF = 8.02 - Min IF= 0.387/ (Avg.= 3.09)
11	h-index	

c) Book Chapters

SI No.	Details	Specify number here
1	Chapters in Books	Dalip Kumar, V. Arun, Meenakshi Paliana, N. Maruthi Kumar; Organohypervalent Iodine Reagents in the Synthesis of Bioactive Heterocycles (Book Chapter), Green Synthetic Approaches for Biologically Relevant Heterocycles (Elsevier). 2014
	Edited Books	1. Ion Channels and Their Inhibitors, Springer-Verlag, Heidelberg Germany, Edited by S. P. Gupta (2011). 2. Advances in Studies on Matrix Metalloproteinase Inhibitors, a Volume of Experientia Supplementum, Birkhauser Verlag, Basel, Edited by S. P. Gupta (2011). 3. S. P. Gupta, QSAR and Molecular Modeling, Springer Verlag, Heidelberg Germany/ Anamaya, Delhi (2011).

Details of the publications as per the number given above (Give details in the last five years)

S No.	Authors	Title of the Publications	Details of the Journal	Impact Factor	National/ International	Year
1	KP Chandra Shekar, B Mishra, Anil Kumar, S Phukan, S Phukan Mitra, D Kumar	Synthesis and fluorescence studies of porphyrin appended 1,3,4-oxadiazoles	J. Porphyrin Phthalocyanines 2010, 14, 1034-1039	1.397	International	2010
2	Anil Kumar, MS Rao, VK Rao	Cerium triflate: An efficient and recyclable catalyst for chemoselective thioacetalization of carbonyl compounds under solvent-free conditions	Aust. J. Chem. 2010, 63, 135-140.	1.558	International	2010

3	Anil Kumar, MS Rao, VK Rao	Sodium dodecyl sulfate-assisted synthesis of 1-(benzothiazolylamino)methyl-2-naphthols in water	Aust. J. Chem. 2010, 63, 1538-1540	1.558	International	2010
4	Dalip Kumar, V. Buchi Reddy, Anil Kumar, Deendayal Mandal, Rakesh Tiwari, Keykavous Parang	Click chemistry inspired one-pot synthesis of 1,4-disubstituted 1,2,3-triazoles and their Src kinase inhibitory activity	Bioorg. Med. Chem Lett., 2011, 21, 449.	2.420	International	2010
5	Dalip Kumar, N. Maruthi Kumar, Kanako Akamatsu, Eriko Kusaka, Hiroshi Harada, Takeo Ito	Synthesis and biological evaluation of indolyl chalcones as antitumor agents	Bioorg. Med. Chem Lett., 2010, 20, 3916.	2.420	International	2010
6	HK Agarwal, Anil Kumar, GF Doncel, K Parang	Synthesis, antiviral and contraceptive activities of nucleoside-sodium cellulose sulfate acetate and succinate conjugates	Bioorg. Med. Chem. Lett. 2010, 20, 6993-6997	2.420	International	2010
7	Dalip Kumar, N. Maruthi Kumar, Kuei-Hua Chang, Kavita Shah	Synthesis of Novel Indolyl-1,2,4-triazoles as Potent and Selective Anticancer Agents	Chem. Biol. Drug. Des., 2010, 77, 182.	2.485	International	2010
8	Dalip Kumar, V. Buchi Reddy	An Efficient, One-Pot, Regioselective Synthesis of 1,4-Diaryl-1H-1,2,3-triazoles Using Click Chemistry	Synthesis, 2010, 1687.	2.689	International	2010
9	M. Sowmiya, A. K. Tiwari, and S. K. Saha	Fluorescent probe studies of micropolarity, premicellar and micellar aggregation of non-ionic Brij surfactants	J. Colloid Interface Sci., 2010, 344, 97.	3.368	International	2010
10	Dalip Kumar, N. Maruthi Kumar, Swapna Sundaree, Emmanuel O. Johnson, Kavita Shah	An expeditious synthesis and anticancer activity of novel 4-(3'-indolyl)oxazoles	Eur. J. Med. Chem, 2010, 45, 1244.	3.447	International	2010
11	Dalip Kumar, N. Maruthi Kumar, Kuei-Hua Chang, Kavita Shah	Synthesis and anticancer activity of 5-(3-indolyl)-1,3,4-thiadiazoles	Eur. J. Med. Chem, 2010, 45, 4664.	3.447	International	2010
12	Ram Kinkar Roy and Soumen Saha	Studies of Regioselectivity of Large Molecular Systems Using DFT Based Reactivity Descriptors	Annu. Rep. Prog. Chem., Sect. C: Phys. Chem., 2010, 106, 118-162.		International	2010
13	Anil Kumar, MS Rao, V Mehta	A simple and efficient bromoazidation of alkenes using PTT and TMSN ₃ in ionic liquid	Indian J. Chem. 2011, 50B, 1123-1127	0.387	National	2011
14	VK Rao, MM Kumar, Anil Kumar	An efficient and simple synthesis of tetraketones catalysed by Yb(OTf) ₃ -SiO ₂ under solvent free	Indian J. Chem. 2011, 50B, 1128-1135.	0.387	National	2011

		conditions				
15	VK Rao, MS Rao, Anil Kumar	Ytterbium(III) triflate: An efficient and simple catalyst for isomerization of 2'-hydroxychalcone and 2'-aminochalcones in ionic liquid	J. Heterocyclic Chem. 2011, 48, 1356-1360	0.787	International	2011
16	MK Muthyala, VK Rao, Anil Kumar	Cu(OTf) ₂ catalyzed synthesis of bis(5-methyl-2-furyl)methanes by condensation of 2-methylfuran with carbonyl compounds under solvent free conditions	Chin. J. Chem. 2011, 29, 1483-1488	1.578	International	2011
17	VK Rao, MS Rao, N Jain, J Panwar, Anil Kumar	Silver triflate catalyzed synthesis of 3-aminoalkylated indoles and evaluation of their antibacterial activities	Org. Med. Chem. Lett. 2011, 1, 10	2.190	International	2011
18	Anil Kumar, MK Muthyala	1-Butyl-3-methylimidazolium p-toluenesulfinate: A novel reagent for synthesis of β -ketosulfones in ionic liquid	Tetrahedron Lett. 2011, 52, 5368-5370	2.379	International	2011
19	Dalip Kumar, N. M. Kumar, G. Patel, S. Gupta, R. S. Varma	A facile and eco-friendly synthesis of diarylthiazoles and diarylimidazoles in water	Tetrahedron Lett., 2011, 52, 1983.	2.379	International	2011
20	Anil Kumar, VK Rao	Microwave-assisted and Yb(OTf) ₃ promoted one-pot multicomponent synthesis of substituted quinolines in ionic liquid	Synlett 2011, 2157-2162	2.419	International	2011
21	VK Rao, BS Chhikara, AN Shirazi, R Tiwari, K Parang, Anil Kumar	3-Substituted indoles: One-pot synthesis and evaluation of anticancer and Src kinase inhibitory activities	Bioorg. Med. Chem. Lett. 2011, 21, 3511-3514	2.420	International	2011
22	Dalip Kumar, V. B. Reddy, A. Kumar, D. Mandal, R. Tiwari, K. Parang	Click chemistry inspired one-pot synthesis of 1,4-disubstituted 1,2,3-triazoles and their Src kinase inhibitory activity	Bioorg. Med. Chem. Lett., 2011, 21, 449.	2.420	International	2011
23	Anil Kumar, I Ahmad, BS Chhikara, R Tiwari, D Mandal, K Parang	Synthesis of 3-phenylpyrazolopyrimidine-1,2,3-triazole conjugates and evaluation of their Src kinase inhibitory and anticancer activities	Bioorg. Med. Chem. Lett. 2011, 21, 1342-1346	2.420	International	2011
24	Dalip Kumar, N. M. Kumar, K.-H. Chang, K. Shah	Synthesis of Novel Indolyl-1,2,4-triazoles as Potent and Selective Anticancer Agents,	Chem. Biol. Drug. Des., 2011, 77, 182.	2.485	International	2011
25	M. Sowmiya, A. K. Tiwari, Sonu, and S. K. Saha	Study on intramolecular charge transfer fluorescence properties of trans-4-[4-(N,N-dimethylamino)styryl]pyridine: Effect of solvent and pH	J. Photochem. Photobiol. A: Chem., 2011, 218, 76.	2.495	International	2011

26	A. K. Tiwari, Sonu, M. Sowmiya and S. K. Saha	Study on pre-micellar and micellar aggregates of gemini surfactants with hydroxyl substituted spacers in aqueous solution using a probe showing TICT fluorescence properties	J. Photochem. Photobiol. A: Chem., 2011, 223, 6.	2.495	International	2011
27	BS Chhikara, NS Jean, D Mandal, Anil Kumar, K Parang	Fatty-acyl amide derivatives of doxorubicin: Synthesis and in vitro anticancer activities	Eur. J. Med. Chem. 2011, 46, 2037-2042.	3.447	International	2011
28	C. S. Rossiter, E. Modica, Dalip Kumar, S. E. Rokita	Few constraints limit the design of quinone-methide-oligonucleotide self-adducts for directing DNA alkylation	Chem. Commun. 2011, 47, 1476.	6.834	International	2011
29	MK Muthyala, Anil Kumar	A novel and efficient one pot synthesis of 2,4-disubstituted thiazoles and oxazoles using PTT in ionic liquid	J. Heterocyclic Chem. 2012, 49, 959-964	0.787	International	2012
30	Anil Kumar, MK Muthyala, BS Chhikara, K Parang	Ionic liquid supported TBD: An efficient and recyclable organocatalyst for Michael addition to α,β -unsaturated ketones	Can. J. Chem. 2012, 90, 290-297	1.061	International	2012
31	MS Rao, BS Chhikara, R Tiwari, AN Shirazi, K Parang, Anil Kumar	Microwave-Assisted and scandium triflate catalyzed synthesis of tetrahydrobenzo[a]xanthene-11-ones	Monatsh Chem. 2012, 143, 263-268	1.222	International	2012
32	Anil Kumar, MS Rao	An expeditious and greener one-pot synthesis of 4H-chromenes catalyzed by Ba(OTf) ₂ in PEG-water	Green Chem. Lett. Rev. 2012, 5, 283-290	1.327	International	2012
33	Amrit Sarmah, Soumen Saha, Priyanka Bagaria (Gupta) and Ram Kinkar Roy	On The Complementarity of CDASE-Scheme and Supermolecular Approach	Chem. Phys. 394, 29-35.	1.696	International	2012
34	B Khungar, MS Rao, K Pericherla, P Nehra, N Jain, J Panwar, Anil Kumar	Synthesis, characterization and microbiocidal studies of novel ionic liquid tagged Schiff bases	C. R. Chimie 2012, 15, 669-674	1.713	International	2012
35	Manjuri K. Koley, Seshadri C. Sivasubramanian, Babu Varghese, Periakaruppan T. Manoharan & Aditya P. Koley	A paramagnetic octahedral trans-dihydroxy chromium(IV) complex with dianionic tetradentate Schiff base salophen and crystal structure of its transdiisothiocyanato analog	Journal of Coordination Chemistry, 2012,65, 3623	2.012	International	2012
36	Manjuri K. Koley, Seshadri C. Sivasubramanian, Sumit Biswas, Periakaruppan T. Manoharan & Aditya P. Koley	Dioxygen binding and activation by a highly reactive Cr(II) compound containing S,N-donors derived from o-aminothiophenol	Journal of Coordination Chemistry, 2012,65, 3329	2.012	International	2012

37	K. Pericherla, B. Khungar, A. Kumar	One-pot, three-component synthesis of 1-amidomethyl-imidazo[1,2-a]pyridines catalyzed by ytterbium triflate	Tetrahedron Lett., 53, 1253-1257, 2012.	2.370	International	2012
38	K Pericherla, P Khedar, B Khungar, Anil Kumar	Click chemistry inspired structural modification ofazole antifungal agents to synthesize novel "drug like" molecules	Tetrahedron Lett. 2012, 53, 6761-6764.	2.379	International	2012
39	P Khedar, K Pericherla, Anil Kumar	Exploration of CuAAC reaction for the synthesis of novel 3-(triazol-1-yl)methyl-imidazo[1,2-a]pyridines	Synlett 2012, 2609-2614	2.419	International	2012
40	Dalip Kumar, N. M. Kumar, S. Ghosh, K. Shah	Novel bis(indolyl)hydrazide-hydrazones as potent anticancer agents	Bioorg. Med. Chem. Lett., 2012, 22, 212.	2.420	International	2012
41	VK Rao, BS Chhikara, R Tiwari, AN Shirazi, K Parang, Anil Kumar	One-pot regioselective synthesis of tetrahydroindazolones and evaluation of their anticancer and Src kinase inhibition activities	Bioorg. Med. Chem. Lett. 2012, 22, 410-414	2.420	International	2012
42	Dalip Kumar, G. Patel, L. Vijayakrishnan, S. G. Dastidar, A. Ray	Design and Synthesis of 3,5-Disubstituted-1,2,4-oxadiazoles as Potent Inhibitors of Phosphodiesterase4B2	Chem. Biol. Drug. Des., 2012, 79, 810.	2.485	International	2012
43	M. Sowmiya and S. K. Saha	Exploration of twisted intramolecular charge transfer fluorescence properties of trans-2-	J. Luminescence, 2012, 132, 2166.	2.719	International	2012
44	Dalip Kumar, V. Arun, N. Maruthi Kumar, G. Acosta, B. Noel, K. Shah	A facile synthesis of novel bis-(indolyl)-1,3,4-oxadiazoles as potent cytotoxic agents,	ChemMedChem, 2012, 7, 1915.	2.968	International	2012
45	MK Muthayala, Anil Kumar	Ionic liquid supported aldehyde: A highly efficient scavenger for primary amines	ACS Comb. Sci. 2012, 14, 5-9	3.032	International	2012
46	MK Muthyala, BS Chhikara, K Parang, Anil Kumar	Ionic liquid-supported synthesis of sulfonamides and carboxamides	ACS Comb. Sci. 2012, 14, 60-65.	3.032	International	2012
47	Dalip Kumar, N. Maruthi Kumar, Brett Noel, Kavita Shah	A series of 2-arylamino-5-(indolyl)-1,3,4-thiadiazoles as potent cytotoxic agents	Eur. J. Med. Chem, 2012, 55, 432.	3.447	International	2012
48	K Soni, Anil Kumar, AK Sah	Saccharide derived dinuclear Cu(II) complex: An efficient catalyst for oxidation of catechol and benzylic alcohols	Catal. Commun. 2012, 17, 95-98.	3.699	International	2012
49	Ajay K. Sah, Kiran Soni	Synthesis of cupric acetate selective receptor derived from alanyl glycoconjugate and their application in selective oxidation of benzylic alcohols	Catalysis Communications, 2012, 28, 120-123	3.699	International	2012

50	Indresh Kumar, Nisar A. Mir, Panduga Ramaraju, and Basant P. Wakhloo,	Organocatalytic Mannich/cyclization/ aromatization sequence: direct synthesis of substituted pyrrole-3-carboxaldehydes	RSC Advances 2012, 2, 8922.	3.840	International	2012
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148	Rituparna Bhattacharjee and Ram Kinkar Roy	Negativity of Fukui function of some isolated s and p block elements: The role of orbital relaxation effect.	<i>Chem. Phys. Lett.</i> 2015, (Just accepted).	2.337	International	2015
149	GM Shelkea, VK Rao, M Jha, TS Cameron, Anil Kumar	Synthesis of 5,7-diarylpyrazolo[1,5-a]pyrimidines via KOH mediated tandem reaction of 1H-pyrazol-3-amines and chalcones	<i>Tetrahedron Lett.</i> 2015, 56, 549-553.	2.379	International	2015
150	P Kaswan, K Pericherla, HK Saini, Anil Kumar,	Microwave assisted catalyst-free synthesis of substituted 1,2,4-triazoles	<i>Synlett</i> , 2015, 26,404-407.	2.419	International	2015
151	HK Saini, S Dhiman, K Pericherla, Anil Kumar	2-(3'-Indolyl)-N-arylthiazole-4-carboxamides: Synthesis and evaluation of antibacterial and anticancer activities	<i>Bioorg. Med. Chem. Lett.</i> 2015 (in press).	2.420	International	2015
152	Mukund P. Tantak, Jing Wang, Rajnish Prakash Singh, Anil Kumar, Kavita Shah, Dalip Kumar	2-(3'-Indolyl)-N-arylthiazole-4-carboxamides: Synthesis and evaluation of antibacterial and anticancer activities	<i>Bioorg. Med. Chem. Lett.</i> 2015, (In press).	2.420	International	2015
153	Sunita Joshi, Santosh kumari, Rituparna Bhattacharjee, Rajeev Sakhuja, Debi D. Pant	Estimation of ground and excited-state dipole moments of synthesized coumarin derivative, (S)-1-((7-hydroxy-2-oxo-2H-chromen-4-yl)methyl)-1H-1,2,3-triazol-4-yl)methyl 2-(((9H-fluoren-9-yl)methoxy)carbonylamino)-3-phenylpropanoate from a solvatochromic shift and theoretical methods	<i>J. Molecular Liquids</i> , 2015, 209, 219-223.	2.520	International	2015
154	RP Singh, GM Shelke, Anil Kumar, PN Jha	Iodine-mediated microwave assisted synthesis of 2-arylnaphthofurans via cyclization of 1-(1'-arylvinyl)-2-naphthols	<i>Synthesis</i> , 2015 (in press).	2.689	International	2015
155	K Pandey, S Choudhary, MK Muthyala, Anil	Recent developments in the synthesis of imidazo[1,2-a]pyridines	<i>Synthesis</i> , 2015, 47, 887-912.	2.689	International	2015

	Kumar					
156	S Choudhary, Saroj, K Pandey, Anil Kumar	Synthesis of imidazo[1,2-f]phenanthridines through palladium-catalyzed intramolecular C–C bond formation	Synthesis, 2015 (in press).	2.689	International	2015
157	Paritosh Shukla, Ashok Sharma, Badvel Pallavi, and Chien Hong Cheng	Nickel-Catalysed Reductive Heck Type Coupling of Saturated Alkyl Halides with Acrylates and Oxabenzonorbornadiene	<i>Tetrahedron</i> , 2015, 71, 2260-2266	2.800	International	2015
158	Rajeev Sakhuja, Krishnakanth Kondabolu, Tania Córdova-Sintjago, Sean Travers, Adam S. Vincek, Myong Sang Kim, Khalil A. Abboud, Lijuan Fang, Zhuming Sun, Clinton E. Canal, Raymond G. Booth	Novel 4-Substituted-N,N-dimethyltetrahydronaphthalen-2-amines: Synthesis, Affinity, and In Silico Docking Studies at Serotonin 5-HT ₂ -type and Histamine H ₁ G Protein-Coupled Receptors	<i>Bioorganic & Medicinal Chemistry</i> , 2015; 23(7), 1588-1600.	2.950	International	2015
159	Sonu, S. Kumari and S. K. Saha	Effect of polymethylene spacer of cationic gemini surfactants on solvation dynamics and rotational relaxation of Coumarin 153 in aqueous micelles	<i>J. Phys. Chem. B.</i> , 2015, 119, 9751.	3.302	International	2015
161	Indresh Kumar, P. Ramaraju, N. A. Mir and A. Singh	Linear dialdehydes as promising substrates for aminocatalyzed transformations	<i>Org. Biomol. Chem.</i> , 2015, 13, 1280.	3.560	International	2015
162	P Kaswan, K Pericherla, D Purohit, Anil Kumar	Synthesis of novelazole fused-quinazolines via one-pot sequential Ullmann type coupling and intramolecular dehydrogenative C–N bonding	<i>Org. Biomol. Chem.</i> 2015, 13, 2947-2950.	3.562	International	2015
163	A. K. Tiwaria, S. Gangopadhyay, C.-H. Chang, S. Pande, S. K. Saha	Study on Metal Nanoparticles Synthesis and Orientation of Gemini Surfactant Molecules Used as Stabilizer	<i>J. Colloid. Int. Sci.</i> , 2015, 445, 76-83	3.637	International	2015
164	Dalip Kumar, Bhupendra Mishra, K. P. Chandrashekar, Santosh B. Khandagale, Mukund P. Tantak, Anil Kumar, Kanako Akamatsu, Eriko Kusaka, Kazuhito Tanabe, Takeo Ito	Synthesis of meso-(4'-cyanophenyl) porphyrins: efficient photocytotoxicity against A549 cancer cells and their DNA interactions	<i>RSC Adv.</i> , 2015, 5, 53618.	3.800	International	2015
165	Navin Jain, Parvej Alam, Inamur Rahaman Laskar, and Jitendra	Aggregation Induced Phosphorescence' Active Iridium(III) Complexes for Integrated Sensing and	<i>RSC Advances</i> , 2015, 5, 61983-61988	3.840	International	2015

	Panwar	Inhibition of Bacteria in Aqueous Solution,				
166	Fayaz Baig, Rajni Kant, Vivek K. Gupta and Madhushree Sarkar	Effects of non covalent interactions in light emitting properties of bis-pyridyl-alkyl-di-imines	RSC Advances, 2015, 5, 51220	3.840	International	2015
167	K Pericherla, GM Shelke, YC Kothari, Anil Kumar	Imidazolium salt-supported mukaiyama reagent: An efficient condensation reagent for amide bond formation	RSC Adv. 2015, 5, 13797-13804.	3.840	International	2015
168	D Kumar, B Mishra, KP Chandra Shekar, SB Khandagale, MP Tantak, Anil Kumar, I Takeo, K Tanabe, E Kusaka, K Akamatsu	Ionic liquid-supported benzyl azide: An efficient soluble scavenger for alkynes	RSC Adv. 2015, 5, 67049-67053.	3.840	International	2015
169	A Jha, Y Yadav, AB Naidu, VK Rao, Anil Kumar, VS Parmar, WJ MacDonald, CKL Too, J Balzarini, CJ Barden, TS Cameron	One-pot, three component tandem reaction of 2-aminopyridines, acetophenones and aldehydes: synthesis of 3-arylimidazo[1,2-a]pyridines	RSC Adv. 2015, 5, 3670–3677.	3.840	International	2015
170	P Khedar, K Pericherla, RP Singh, PN Jha, Anil Kumar	Synthesis of meso-(4'-cyanophenyl) porphyrins: efficient photocytotoxicity against A549 cancer cells and their DNA interactions	RSC Adv. 2015, 5, 53618-53622.	3.840	International	2015
171	D Kumar, MP Tantak, J Wang, Anil Kumar, K Shah, RP Singh	Biochemistry and Genetics of ACC deaminase: A weapon to stress ethylene produced in plants	Front. Microbiol. 2015 (in press).	4.000	International	2015
172	Parvej Alam, Gurpreet Kaur, Amrit Sarmah, Ram Kinkar Roy, Angshuman Roy Choudhury, and Inamur Rahaman Laskar	Highly Selective Detection of H ⁺ and OH ⁻ with a Single Emissive Iridium(III) Complex: A Mild Approach to Conversion of Non-AIE to AIE Complex (AIE = Aggregation Induced Emission).	ACS Organometallics (Just accepted).	4.126	International	2015
173	Parvej Alam, Gurpreet Kaur, Amrit Sarmah, Ram Kinkar Roy, Angshuman Roy Choudhury, and Inamur Rahaman Laskar	Highly Selective Detection of H ⁺ and OH ⁻ with a Single Emissive Iridium(III) Complex: A Mild Approach to Conversion of Non-AIE to AIE Complex (AIE = Aggregation Induced Emission)	ACS Organometallics 2015 (just accepted)	4.126	International	2015
174	Archana Choudhary, Bidisa Das, and Saumi Ray	Encapsulation of a Ni-Salen complex in Zeolite-Y: an experimental and DFT study	<i>Dalton Trans.</i> , 2015, 44, 3753	4.190	International	2015

175	Richa Rakshit, Samir Ghorai, Amrit Sarmah, Ram Kinkar Roy and Chandan Mukherjee	Inter-Ligand Azo (N=N) Unit Formation and Thereafter Stabilization of A Co(II)-Diradical Complex via Metal-to-Ligand dp-pp back donation: Synthesis, Characterization, and Theoretical Study	Dalton Trans, 44, 3724-3727.	4.197	International	2015
176	Parvej Alam, Gurpreet Kaur, Shamik Chakraborty, Angshuman Roy Choudhury, Inamur Rahaman Laskar	Aggregation Induced Phosphorescence' Active 'Rollover' Iridium(III) Complex as Multi-Stimuli-Responsive Luminescence Material	<i>Dalton Trans.</i> , 2015, 4 4, 6581-6592.	4.197	International	2015
177	Sunita Joshi, Santosh Kumari, Rituparna Bhattacharjee, Amrit Sarmah, Rajeev Sakhuja, Debi D Pant	Experimental and theoretical study: determination of dipole moment of synthesized coumarin-triazole derivatives and application as turn off fluorescence sensor: high sensitivity for iron (III) ions	<i>Sensors and Actuators B Chemical</i> , 2015 (in press); DOI: 10.1016/j.snb.2015.07.053	4.290	International	2015
178	Parvej Alam, Gurpreet Kaur, Vishal kachwal, Asish Gupta, Angshuman Roy Chaudhury and Inamur Rahaman Laskar	Highly Sensitive Explosive Sensing by "Aggregation Induced Phosphorescence" Active Cyclometalated Iridium(III) Complexes	<i>Journal of Materials Chemistry</i> , 2015, 3, 5450-5456.	4.696	International	2015
179	K Pericherla, P Kaswan, K. Pandey, Anil Kumar	Access to substituted dihydrothiopyrano[2,3-b]indoles via sequential rearrangements during s-alkylation and au-catalyzed hydroarylation on indoline-2-thiones	<i>J. Org. Chem.</i> 2015, 80, 5272–5278.	4.721	International	2015
180	Amrit Sarmah and Ram Kinkar Roy	Interaction between Small Gold Clusters and Nucleobases: A Density Functional Reactivity Theory Based Study	<i>J. Phys. Chem. C</i> , 119, 17940–17953.	4.770	International	2015
181	S. Shyamal, P. Hajra, H. Mandal, J. K. Singh, A. K. Satpati, S. Pande, C. Bhattacharya	Effect of Substrates on the Photoelectrochemical Reduction of Water over Cathodically Electrodeposited p-Type Cu ₂ O Thin Films	<i>ACS Appl. Mater. Interfaces</i> 2015, 7, 18344–18352	6.723	International	2015
182	Ashok Sharma, Rajdeep Chowdhury, Subhra Dash, Badvel Pallavi, and Paritosh Shukla	Fast Microwave Assisted Synthesis of Pyranopyrazole Derivatives as New Anticancer Agents	<i>Curr. Microwave Chem.</i> 2015, 3, 1-6.		International	2015

Conference data:

S.No	Name	Title of the Paper	Conference Name	National /International	Year
1	A.Santhana Krishna Kumar, S. Kalidhasan and N. Rajesh	Amine Impregnated in Polymeric resin matrix for the removal of toxic Chromium from Industrial waste water	12th CRSI National Symposium in Chemistry, Indian Institute of Chemical Technology (IICT), Hyderabad	National	2010
2	K V G Chandra Sekhar, V S Rao, Winnie Deuther-Conrad, Peter Brust,	Synthesis and Preliminary <i>in vitro</i> and <i>in vivo</i> Pharmacological Evaluation of 2-[4-[4substitutedthiazolyl] phenylethyl] piperazin-1-yl]-1,8-naphthyridine-3-carbonitriles as Atypical Antipsychotic Agents	12th CRSI National Symposium in Chemistry, Indian Institute of Chemical Technology (IICT), Hyderabad	National	2010
3	N Rajesh	Biopolymer sorbents & their applications	The National Conference on Green and Sustainable Chemistry (NCGSC) BITS Pilani	National	2010
4	S.Kalidhasan, Vidya Rajesh and N. Rajesh	Bio-polymer adsorbent for the removal of dyes from aqueous solution	The National Conference on Green and Sustainable Chemistry (NCGSC) BITS Pilani	National	2010
5	Kalidhasan, A Santhana Krishna Kumar, Vidya Rajesh and N. Rajesh	Microwave assisted preparation of surfactant coated cellulose sorbent for the removal of toxic chromium from industrial waste water	5th Midyear CRSI Symposium in Chemistry, National Institute of Interdisciplinary Science and Technology (NIIST), Trivandrum	National	2010
6	Dr. Subit Kumar Saha	Presented paper on Effect of a cationic surfactant on the binding of a guest molecule with the nanotubes of β -cyclodextrin A possible drug-delivery system	4 th Asian Conference on Colloid and Interface Science (ACCIS 2011) held at Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan, hosted by The Asian Society for Colloid and Surface Science (ASCASS)	International	2011
7	Dr. Subit Kumar Saha	Micellization behavior of gemini surfactants with hydroxyl substituted spacers in water and water-organic solvent mixed media: The spacer effect	6 th National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS-2011) held at Department of Chemistry, M. D. University, Rohtak under the auspices of The Indian	National	2011

			Thermodynamics Society during November 2-4		
8	Dr. Inamur Laskar	Efficient and Saturated Blue Emitting Iridium based Triplet Harvesting Materials: Applications in Electroluminescent Devices	XVI International Workshop on the Physics of Semiconductor Devices during December 19-22, 2011 at IIT Kanpur.	International	2011
9	Manoj Kumar Muthyala, Bhupender S Chhikara, Keykavous Parang, Anil Kumar	[TBDbmim]Br: An efficient and recyclable organocatalyst for Michael addition to α,β -unsaturated ketones	National symposium on organic synthesis, IIS University, Jaipur during February 18-19.	NAtional	2011
10	Manoj Kumar Muthyala, Anil Kumar	Ionic liquid supported synthesis of sulfonamides and carboxamides	International Conference on Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability (ISCBC) Department of Chemistry, Saurashtra University, Rajkot. February 7-8.	International	2011
11	V. Kameshwar Rao, Bhupender S Chhikara, Rakesh K. Tiwari, Navin Jain, Jitendra Panwar, Keykavous Parang, Anil Kumar	Synthesis of 3-substitued indoles and evaluation of their Src kinase inhibition and antibacterial activity	International Conference on Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability (ISCBC) Department of Chemistry, Saurashtra University, Rajkot. February 7-8.	International	2011
12	Bhupender Mishra, K P Chandrashekar, Anil Kumar, Dalip Kumar	Synthesis and photophysical studies of novel porphyrin thiazoles,	International Conference on Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability (ISCBC) Department of Chemistry, Saurashtra University, Rajkot. February 7-8	International	2011

13	Anil Kumar	Click chemistry guided synthesis of 1,4-substituted triazoles as Src kinase Inhibitors	International Conference on Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability (ISCBC) Department of Chemistry, Saurashtra University, Rajkot. February 7-8	International	2011
14	Manoj Kumar Muthyala and Anil Kumar	Ionic liquid supported sulfonyl azide: A green reagent for diazo transfer reaction	Catalysis-2011, Dr. Reddy's Laboratories, Hyderabad	National	2011
15	Prashant U Manohar	Electronic structure of 2- and 5- dehydro m-benzoquinone versus 2- and 5- dehydro m-xylene: A comparative study	Theoretical Chemistry Symposium 2012 (TCS-2012) held at IIT Guwahati	National	2012
16	Parvez Alam, Inamur R. Laskar	Syntheses of Highly Efficient Divalent Iridium Complexes and Study of their Aggregation Induced Enhanced Emission Properties	BITS, Pilani, Rajasthan (Dept. of Physics)	National	2012
17	Inamur R. Laskar,	Triplet Harvesting Materials : Applications in Organic Light Emitting Devices	National Conference on Nanoscience and Nanotechnology , held at Aligarh Muslim University (AMU),	National	2012
18	Parvez Alam and Inamur R. Laskar	Microwave-Assisted Facile and Clean Synthesis of Cyclometalated Iridium(III) Complexes Useful for Organic Light Emitting Diodes	BITS, Pilani, Rajasthan (Dept. of Chem.)	National	2012
19	Kumari Suman and Madhushree Sarkar	Effect of Counter Anions and Guest Molecules in Assembling Metal-Organic Frameworks (MOFs): A Case Study on the MOFs formed by Amide-Based <i>Exo</i> bidentate ligands	National Symposium on Recent Trends in Chemical Science and Technology, Held in IIT Patna	National	2012
20	Subit K. Saha	Study on Guest Molecule Induced Nanotubes of Cyclodextrins and Their Secondary Aggregation Forming Rod-like Structures	National Conference on Condensed Matter Physics (NCCMP), Department of Physics, BITS Pilani	National	2012
21	Subit K. Saha	Study on mixed micellization behavior of	Conference on Photochemistry and	National	2012

		cationic gemini surfactants with hydroxyl substituted spacer and ionic liquid in water and water-organic solvent mixed media	Luminescence, Department of Chemistry, Indian Institute of Technology, Guwahati		
22	Subit K Saha	Aggregation behavior of gemini surfactants with a room temperature ionic liquid and microenvironment of mixed micelles in water and water-organic solvent mixed media	World Congree on Oleo Science (WCOS 2012) and 29th ISF Congree-JOCS/AOCS/KOCS/ISF Joint Meeting, Arkas Sasebo, Nagasaki, Japan	International	2012
23	Amit K. Tiwari, M. Sowmiya, Sonu, Jagdish Kumar, Subit K. Saha	Binding Interactions between a hemicyanine dye and the nanotubes of β -cyclodextrin	National Conference on Condensed Matter Physics (NCCMP-2012), BITS Pilani	National	2012
24	Amit K. Tiwari, Subit K. Saha,	Study on binding interactions of a hemicyanine dye with nanotubes of β -cyclodextrin and effect of a Hofmeister series of potassium salts on it ,	Symposium on Recent Trends in Chemical Sciences, BITS Pilani	National	2012
25	Sonu, Amit K. Tiwari, Jagdish Kumar, Subit Kumar Saha	Study on Intramolecular Charge Transfer Fluorescence Properties of trans-4-[4'-(N,N'-dimethylamino)styryl]pyridine in Homogeneous and Non-ionic Micellar Medium	National Conference on Condensed Matter Physics (NCCMP) at BITS, Pilani	National	2012
26	Sonu, Amit K. Tiwari, Subit Kumar Saha	Study on Intramolecular Charge transfer Fluorescence Properties of trans-4-[4'-(N,N'dimethylamino)styryl]pyridine in Homogeneous and Non-ionic micellar Medium	Symposium on Recent Trends in Chemical Science at BITS, Pilani	National	2012
27	Sonu, Amit K. Tiwari, Bijender and Subit K. Saha	Dynamics of Solvent and Rotational Relaxation of Coumarin 490 in Cationic Gemini Surfactant Reverse Micelles: A Picosecond Time-Resolved Fluorescence Spectroscopy Study	National Conference on—Global Challenges :New Frontiers in Chemical Sciences Department of Chemistry, Kurukshetra University, Kurukshetra, Haryana	National	2012
28	Sonu, Amit K. Tiwari and Subit K. Saha	Effect of Solvents and pH on Intramolecular ChargeTransfer Fluorescence Properties of trans-2-	Chemical Constellation Cheminar – 2012 (CCC-2012) (An International Conference), Department of	International	2012

		[4'(N,N'dimethylaminostyr yl)]pyridine	Chemistry, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Pujnjab		
29	Amit K. Tiwari, Sonu, Bijender and Subit K. Saha	Dynamics of solvent and rotational relaxation of Coumarin-480 in the micelles of Gemini surfactants: The Spacer effect .	Chemical Constellation Cheminar – 2012 (CCC-2012) (An International Conference), Department of Chemistry, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Pujnjab	International	2012
30	Ram Kinkar Roy	Can Hardness Potential Remove The N-Dependence Problem of Local Hardness Dextriptor	National Symposium on Current Trends in Computational Chemistry (CTCC-2012) at North Eastern Hill University (NEHU), Shillong, Meghalaya	National	2012
31	Priya C Sande and Saumi Ray	Modeling and Simulation of Nitrogen Fluidized Bed of Copper Dichloride using Computational Fluid Dynamics	National conference on Modeling Computational Fluid Dynamics and Operational Research Department of Mathematics, BITS Pilani	National	2012
32	Archana Choudhary and Saumi Ray	Study of Host – Guest systems prepared by –Ship in a Bottle complexes synthesis and its characterization	Symposium on Recent Trends In Chemical Sciences, Chemistry Department, BITS Pilani, Rajasthan	National	2012
33	Priya C Sande and Saumi Ray,	Simulation of Reactive and Inert Fluidized bed using CFD approach	Symposium on Recent Trends in Chemical Sciences, Chemistry Department BITS Pilan	National	2012
34	Archana Choudhary and Saumi Ray	Design and Synthesis of Nanostructrual Heterogeneous Catalyst and Characterization	4th National Symposium for Material Research Scholars, IIT Bombay	National	2012
35	Pankaj Nehra, Anil Kumar, Bharti Khungar	Synthesis, characterization and applications of ionic liquid supported Schiff base	National Conference on Material Science: Current Trends and Future Prospects, Department of Chemistry, Lachoo Memorial college of Science and Technology, Jodhpur	National	2012
36	Pankaj Nehra, M. Sudershan Rao, S. C.	Copper mediated catalytic oxidation of alcohols in presence of ionic liquid	National Symposium on Recent Trends in Chemical Science and	National	2012

	Sivasubramanian, Anil Kumar, Bharti Khungar,	supported Schiff Bases	Technology, Department of Chemistry, IIT Patna		
37	Indresh Kumar	Poster Presentation entitled "An Organocatalytic Direct Mannich Cyclization Cascade as [3+2] Annulation: Asymmetric Synthesis of 2,3-substituted pyrrolidines	International Symposium on Chemistry and Chemical Biology of Natural Products (CCBNP-2012)	International	2012
38	Indresh Kumar	Organocatalysis in Asymmetric Synthesis: A Green Strategy for Small Molecule Natural Products (SMNPs) Synthesis	National Seminar on "Significance of Green Strategies for Environmental Protection" by Department of Chemistry at KBN-College, Vijaywada (A.P.)	National	2012
39	Ajay K. Sah	Copper complexes of 4,6-O-ethylidene- β -D-glucofuranosylamine derived ligand and their reactivities	National Symposium on Recent Trends in Chemical Science and Technology (RTCST 2012), held at Department of Chemistry, IIT Patna	National	2012
40	Kiran Soni, Ajay K. Sah	Amino acid derived glycoconjugates: A selective sensor for cupric acetate	Recent Trends in Chemical Sciences, held at Department of Chemistry, BITS Pilani,	National	2012
41	Naroolah Baig, Ajay K. Sah	Synthesis, characterization and proposed reactivities of oxo metal complexes derived from 4,6-O-ethylidene- β -D-glucofuranosylamine based ligand	Recent Trends in Chemical Sciences, held at Department of Chemistry, BITS Pilani	National	2012
42	Dalip Kumar	Design and Synthesis of Azaheterocycles as Antitubulin Agents	17th International Conference on —Expanding Horizons in Chemical and Biological Sciences: Innovations Crossroads , Solapur University, Solapur,	International	2012
43	Dalip Kumar	Organoiodine(III)-Promoted Synthesis of Azaheterocycles as Novel Antitubulin Agents	DBT sponsored short term teacher training program on "Molecular Biology and Organic Synthesis" Institute of Technology and Science(Deemed University) Lakshmanagarh, Sikar	National	2012

44	Dalip Kumar, Bhupendra Mishra, K. P. Chandra Shekar	Synthesis of <i>meso</i> -functionalized porphyrins: their DNA binding and photocleavage studies	International ISCB Conference on Expanding Horizons in Chemical and Biological Sciences: Innovations Crossroads, Solapur University, Maharashtra	International	2012
45	Dalip Kumar, K. P. Chandra Shekar, Bhupendra Mishra	Synthesis and DNA interaction studies of porphyrin appended thiazoles	International ISCB Conference on Expanding Horizons in Chemical and Biological Sciences: Innovations Crossroads, Solapur University, Maharashtra	International	2012
46	N. Maruthi Kumar, Dalip Kumar, Gautam Patel, Lalitha Vijayakrishnan, Sunanda G. Dastidar and Abhijit Ray	Design and synthesis of 3,5-disubstituted-1,2,4-oxadiazoles as potent inhibitors of phosphodiesterase4B2	International Symposium on Airway diseases: Etiology to Clinic Organized by Daiichi Sankyo India Pharma Private Ltd, and Ranbaxy Labs, Gurgaon, India,	International	2012
47	N. Maruthi Kumar	Synthesis of Indolyltriazoles as Potent Antimitotic Agents	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
48	Dalip Kumar, N. Maruthi Kumar	Synthesis and anticancer activity of novel 5-(3-indolyl)-1,3,4-thiadiazoles	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
49	Dalip Kumar, V. Arun,	Synthesis of novel bis(indolyl)-1,3,4-oxadiazoles as potent antimitotic agents	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
50	Dalip Kumar, Meenakshi,	An efficient Iodobenzene diacetate mediated synthesis of amino-1,3,4-oxadiazoles	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
51	Dalip Kumar, Mukund. P. Tantak	Synthesis of some biologically important indolyl thiazoles.	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
52	Dalip Kumar, Bhupendra Mishra, K. P. Chandra Shekar	Synthesis of <i>meso</i> -(4-cyanophenyl)porphyrins: their interactions with ctDNA and photophysical studies	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
53	Dalip Kumar, K. P. Chandra Shekar, Bhupendra Mishra	Synthesis and DNA interaction studies of porphyrin appended thiazoles	Symposium on Recent Trends in Chemical Science, BITS-Pilani	National	2012
54	K. P. Chandra	Synthesis and DNA	Symposium on Recent	National	2012

	Shekar	interaction studies of porphyrin appended thiazoles	Trends in Chemical Science, BITSPilani		
55	R. K. Roy	Use of Density Functional Theory in Studying Reaction Kinetics and Thermodynamics	Theoretical Chemistry Symposium 2012 (TCS-2012) held at IIT Guwahati	National	2012
56	Rituparna Bhattacharjee and R. K. Roy	A brief review and probable extension of conceptual density functional theory based descriptors to predict regioselectivity of biological systems	NCCMP-2012, Dept. of Physics, BITS Pilani	National	2012
57	Rituparna Bhattacharjee and R. K. Roy,	Can hardness Potential Remove N-dependence Problem of Local Hardness	International Congress of Quantum Chemistry, University of Colorado, USA and University of California, Los Angeles, USA	International	2012
58	Amrit Sarmah and R. K. Roy	A CDASE scheme Based Theoretical Justification to Predict The Most Suitable Combination of Cisplatin Analogue and Promising Cisplatin Modulator. Some Useful Findings for Cancer Treatment	Current Trends in Computational Chemistry (CTCC-2012) NEHU, Shillong	National	2012
60	Parvej Alam and Inamur Rahaman Laskar	One-pot synthesis of strong solid state emitting mono-cyclometalated iridium (III) complexes: study of their aggregation induced enhanced phosphorescence	Dr. B R Ambedkar National Institute of Technology, Jalandhar (Department of chemistry)	National	2012
61	Ajay Kumar Sah	Studies on 4,6-O-ethylidene- β -D-glucopyranosylamine derived molecules	National Conference on Innovative Molecules for Sustainable Future, held at Thapar University, Patiala.	National	2013
62	Noorullah Baig MD and Ajay K. Sah	Synthesis and reactivity of amino acid derived Glycoconjugates.	National Conference on Innovative Molecules for Sustainable Future, held at Thapar University, Patiala.	National	2013
63	S. M. Abdul Shakoor, A. Kumar, Rajeev Sakhuja	Microwave-assisted Synthesis of Imidazo[1,2-a]pyridin-3-yl)quinoxalinones.	19th International Conference (ISCBC-2013) held at Mohanlal Sukhadia University, Udaipur.	International	2013

64	S. Pande and R. M. Crooks	Synthesis, Characterization, and Application of Pt and Pd Dendrimer-Encapsulated Nanoparticles in Quantum Dot Region.	100th Indian Science Congress at University of Calcutta, Kolkata.	National	2013
65	Pinku Kaswan, K. Pericherla, Anil Kumar	Ligand free CuI catalyzed amination of 2-(2-bromophenyl) H-imidazo[1,2-a]pyridines.	19th ISCB International Conference (ISCBC-2013), MohanlalSukhadia University, Udaipur, Rajasthan	International	2013
66	Poonam Khedar, K. Pericherla, Anil Kumar,	Synthesis of novel 1-((1-(2-phenoxy-2-phenyl ethyl)-1H-1,2,3-triazol-4-yl)methyl)-4-phenylpiperazine	Recent advances and current trends in chemical and biological sciences, 19th ISCBC-2013, Mohanlal Sukhadia University, Udaipur.	International	2013
67	Manoj Kumar Muthyala and Anil Kumar	Synthesis of ionic liquid-supported hypervalent iodine reagent and application in organic Synthesis	19th ISCB International Conference (ISCBC-2013), MohanlalSukhadia University, Udaipur, Rajasthan	International	2013
68	Manoj Kumar Muthyala and Anil Kumar	Synthesis of ionic liquid-supported hypervalent iodine reagent and application in organic Synthesis	14th Tetrahedron symposium, Vienna, Austria.	International	2013
69	VK Rao, Ganesh M. Shelke, R Tiwari, K Parang, Anil Kumar	Sequential hydroarylation/heck oxyarylation: a simple and efficient strategy for synthesis of 2,3-diarylnaphthofurans	19 th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013) Mohanlal at Sukhadia University Udaipur.	International	2013
70	Ganesh M. Shelke, VK Rao, R Tiwari, K Parang, Anil Kumar	Bismuth triflate catalysed reaction of indole with acetone	19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCBC-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur.	International	2013
71	Kasiviswanadharaju Pericherla, Amitabh Jha, Bharti Khungar	Copper-catalyzed regioselective synthesis of 1,2,3-triazole fused imidazo[1,2-a]pyridines via	Recent Trends in Chemical Sciences", Vellore Institute of Technology, Vellore,	International	2013

	and Anil Kumar	tandem [3+2]azide–alkyne cycloaddition, ullmann type C–N coupling, and intramolecular direct arylation	Tamilnadu.		
72	Sunita Choudhary, Manoj Kumar Muthyala, Anil Kumar	Ionic liquid-supported sulfonyl hydrazine: A novel 'catch and release' reagent for synthesis of pyrazoles	19th International Conference on Chemical Biology for Discovery: Perspectives and Challenges organized by the Indian Society of Chemists & Biologists (ISCB-2013), Department of Chemistry, Mohanlal Sukhadia University Udaipur.	International	2013
73	Anil Kumar	Application of ionic liquids and ionic liquid-supported reagents in organic synthesis	15th National Symposium in Chemistry (NSC-15) held at Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi.	National	2013
74	Dalip Kumar, Bhupendra Mishra, K. P. Chandra Shekar	Synthesis of <i>meso</i> -(4-cyanophenyl)porphyrins, their photophysical and DNA photocleavage studies	19 th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013
75	Dalip Kumar, K. P. Chandra Shekar, Bhupendra Mishra	Synthesis and DNA cleavage studies of <i>meso</i> -substituted porphyrin 1,3,4-oxadiazoles	19th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013
76	Dalip Kumar, V. Arun,	Design, Synthesis and anticancer activity of novel bis(indolyl)-1,3,4-oxadiazoles	19th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013
77	Dalip Kumar, Meenakshi Pilonia and N. Maruthi Kumar	Iodobenzene diacetate-mediated synthesis of 2-arylamino-1,3,4-oxadiazoles	19th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013

78	Dalip Kumar, Mukund. P. Tantak and Anil Kumar.	A facile and efficient synthesis of 2-aryl amino-5-(3'-indolyl)-1,3,4-oxadiazoles as cytotoxic agents	19th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013
79	Dalip Kumar, Savita Pooniya, K. P. Chandra Shekar and V. Arun	Copper catalyzed efficient synthesis of arylaminoporphyrins	19th International ISCB Conference on Recent advances and current trends in Chemical and Biological Sciences: Mohanlal Sukhadia University, Udaipur, Rajasthan	International	2013
80	Inamur R. Laskar	Variability of Aggregation Induced Enhanced Phosphorescent Emission in a Common Framework of Cyclometalated Iridium(III) Complexes and their Applications in Bioimaging and Sensors	(ACS-2013), held at Dept. of Chemistry, M. D. University, Rohtak	National	2013
81	Inamur R. Laskar	Aggregation Induced Enhanced Phosphorescent Emission and their Applications	(Aligarh Nano,-III, 'National Conference on Nanoscience and Nanotechnology) held at Aligarh University'	National	2013
82	Inamur R. Laskar	Tuning of Aggregation Induced Emission Wavelength in a Common Framework of Cyclometalated Iridium(III) Complex: Micellar Encapsulated Probe in Bioimaging	15th Asia Chemical Congress 2013 held at Resorts World Sentosa, Singapore	International	2013
83	Indresh Kumar	Organocatalysis as Green Strategy For the Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)	Emerging Trends in Development of Drugs and Devices" at Department of Chemistry, University of Delhi	National	2013
84	Indresh Kumar	An organocatalytic direct Mannich-cyclization cascade as [3+2] annulation: asymmetric synthesis of 2,3-substituted pyrrolidines	19-International conference of Indian Society of Chemists and Biologists (ISCB) at M. S. University, Udaipur	International	2013
85	Indresh Kumar	Organocatalytic Cascade Strategy For the Asymmetric Synthesis of Small Molecule Natural Products (SMNPs)	National Conference on Frontiers in Physical, Chemical and Biological Sciences (FPCBS-2013) University of Pune.	National	2013
86	Kumari Suman, Madhushree	Interference of Pyridine moiety & H ₂ O in	19th ISCB International Conference jointly	International	2013

	Sarkar	formation of Amide-to-Amide Hydrogen Bonds: A Case Study on the Crystal Structures of Mono-pyridylmono-amidealkanes and Bis-pyridyl-bis-amidealkanes	organized by Department of Chemistry and Indian Society of Chemists & Biologists, at Mohanlal Sukhadia University, Udaipur (Raj).		
87	Rituparna Bhattacharjee, Ram Kinkar Roy	Variants of Hardness Potential: Development and Applications	Electronic structure and dynamics on molecules and clusters (ESDMC) held in IACS, Kolkata	National	2013
88	Amrit Sarmah, Ram Kinkar Roy	A DFRT based study to understand the impact of fullerene symmetry on the kinetic and thermodynamic stability of NanoBud	Current Trend in Theoretical Chemistry 2013 (CTTC-2013) BARC Mumbai	Natioanal	2013
89	Sonu, Amit K. Tiwari, Subit K. Saha	Study on interaction between gemini surfactants and bovine serum albumin: The spacer group effect	International Conference on Interdisciplinary Areas With Chemical Sciences (ICIACS-2013) held at Panjab University, Chandigarh.	International	2013
90	Amit K. Tiwari, Sonu, Surojit Pandey, Subit K. Saha	Orientation of gemini surfactant surrounding the metal nanoparticles: Aided by steady-state fluorescence technique	International Conference on Interdisciplinary Areas With Chemical Sciences 2013 (ICIACS-2013) held at Panjaub University, Chandigarh	International	2013
91	Sonu, Amit K. Tiwari, Subit K. Saha	Solvation and rotational relaxation dynamics of Coumarin 153 in pure and mixed surfactant systems of cationic gemini surfactants and TX-100: The spacer group effect	5th Asian Conference on Colloid and Interface Science (ACCIS 2013) University of North Bengal, Darjeeling.	National	2013
92	Subit K Saha, M. Sowmiya, Amit Kumar Tiwari, Sonu	Study on Binding Interactions of Hemicyanine Dye with Nanotubes of β Cyclodextrin and Effect of a Hofmeister Series of Potassium Salts	5th Asian Conference on Colloid and Interface Science (ACCIS 2013) University of North Bengal, Darjeeling.	National	2013
93	Archana Choudhary	Spectroscopic and magnetic studies of 'Ship-in-a-bottle' Ni(II) Schiff complexes in zeolite-Y	19th ISCB International Conference held at Mohanlal Sukhadia University, Udaipur.	International	2013
94	Shamik Chakraborty	Laser Spectroscopy in Gas phase: Probing Conformational Landscape of Bio-molecules	Discussion meeting on spectroscopy and dynamics of Molecules and Clusters "SDMC-2013, Chunda Palace, Udaipur.	National	2013

95	S. Pande and P. Fageria	ZnO/Au, ZnO/Ag, and Heterostructure of ZnO/ZnS Nanoparticles: Synthesis, Characterization, and Photocatalysis Under UV and Visible Light	3rd International Conference on Physics at Surfaces and Interfaces (PSI 2014) at Puri organized by Institute of Physics, Indian Association for the Cultivation of Science	International	2014
96.	P. Fageria and S. Pande	Synthesis of ZnO/Au and ZnO/Ag nanoparticles and their photocatalytic application using UV and visible light	6th International Conference on Nanoscience and Technology (ICONSAT 2014) at Mohali, Punjab, organized by Institute of Nanoscience and Technology and Punjab University	International	2014
97.	P. Fageria and S. Pande.	Morphology dependent synthesis of ZnO nanoparticles on graphitic(g)-carbon nitride surface: An efficient visible light photocatalyst	National Conference on Nano- and Functional Material (NFM 2014), organized by BITS Pilani	National	2014
98.	Archana Choudhary, Bidisa Das and Saumi Ray	Experimental and Theoretical Evidence for Encapsulation of Ni Salen complex in Zeolite Y	National Conference on Nano- and Functional Materials (NFM 2014) BITS Pilani, Rajasthan	National	2014
99.	F. Baig, S. Kumari and M. Sarkar	Is hydrogen bonding along with flexible alkyl chain a way to generate dynamic coordination polymers? A case study on coordination polymers derived from bis-pyridyl diamide ligands	National Conference on Recent Developments in Chemical Sciences (NCRDCS 2014) held at Guru Jambheshwar University of Science and Technology, Hisar, Haryana	National	2014
100	F. Baig and M. Sarkar	Study of the Structural Features of di-imine based ligands in order to correlate the structure-property relationship and a brief review on their applications	National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan	National	2014
101.	S. Kumari and M. Sarkar	Study on the Structural Transformations of Coordination Polymers derived from <i>Bis</i> -Pyridyl Diamide Ligands on Exchange of Metal Centre and Counter Anions	National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan	National	2014
102.	R. Bhattacharjee and R. K. Roy	Hardness Potential Derivatives: An Alternative Approach towards	Gordon Research Seminar and Conference on Computational	International	2014

		Chemical Reactivity	Chemistry organized by Gordon Research Conference, Mount Snow Resort, West Dover VT, United States		
103.	A. Sarmah and R. K. Roy	An Alternative Approach to Understand the Interaction of Gold-clusters with DNA	NCRDCS 2014, held in GJUST, Hisar.	National	2014
104.	A. Sarmah and R. K. Roy	Application of DFT Based Approach to Design and Fabrication of Hybrid Nanomaterials	RTCET 2014, held in Dept. of Chemistry, NIT Hamirpur, Himachal Pradesh	National	2014
105.	A. Sarmah and R. K. Roy	Modeling of Anti-ferromagnetic Coupling in Co-complexes	NFM 2014, organized by Dept. of Chemistry, BITS Pilani, Pilani Campus.	National	2014
106.	S. Kumari, S.M A. Shakoor, R. Sakhuja,	Fluorescent Labeling of Amino Acids <i>via</i> Click Chemistry	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
107.	Hitesh Kumar Saini, Kasiviswanadharaju Pericherla, Shiv Dhiman, and Anil Kumar	Direct approach towards the synthesis of imidazo[1,2- <i>f</i>]phenanthridines by palladium catalyzed C-H bond functionalization	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
108.	V. Kameswara Rao, Ganesh M. Shelke, Pinku Kaswan and Anil Kumar	Synthesis of naphthofurans <i>via</i> iodine mediated oxidative cyclization of 1-(1-arylvinyl)naphthalen-2-ol	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
109.	Ganesh M. Shelke, Mukund Jha, and Anil Kumar	Synthesis of substituted oxindoles from isatins by one-pot tandem reduction of oxo- and ene-/yne-functionalities by hydrazine	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
110.	Khima Pandey and Anil Kumar	Synthesis of novel ionic liquid-supported	20th ISCB International conference on recent	International	2014

		Mukaiyama reagent and its application as coupling reagent in amide bond formation,	advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi		
111.	Manoj Kumar Muthyala, Sunita Choudhary, Khima Pandey and Anil Kumar, , during March, 1-4, 2014.	Tagged hypervalent iodine (III) reagents: A new liaison between diaryliodonium salts and ionic liquids	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
112.	Mukund P. Tantak, N. Maruthi Kumar, Anil Kumar and Dalip Kumar	Hydrazones of indole-2(3)-carboxylic acid hydrazides: Synthesis and preliminary evaluation as anticancer agents	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi	International	2014
113.	Nitesh Kumar Nandwana, Pinku Kaswan, Kasiviswanadharaju Pericherla, and Anil Kumar	Synthesis of azole-fused-quinazolines <i>via</i> one-pot sequential Ullmann type C-N bonding and intramolecular dehydrogenative C-N coupling.	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi.	International	2014
114.	Poonam Khedar, Kasiviswanadharaju Pericherla and Anil Kumar	Direct conversion of alcohols into azides using TMSN ₃ /Cu(OTf) ₂	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi.	International	2014
115.	Sunita Choudhary, Saroj, Manoj Kumar Muthyala and Anil Kumar	Ionic liquid-supported azide: An efficient soluble scavenger for alkynes	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi.	International	2014
116.	Shiv Dhiman, Kasiviswanadharaju Pericherla, Dalip Kumar and Anil	Synthesis of imidazo[2,1- <i>a</i>]isoquinoline derivatives <i>via</i> domino aldol condensation and	20th ISCB International conference on recent advances and current trends in chemical and	International	2014

	Kumar	palladium catalyzed C-H bond functionalization	biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi.		
117.	Sunita Choudhary, Manoj Kumar Muthyala, and Anil Kumar	Synthesis of aza-heterocycles using ionic liquid-supported hypervalent iodine(III) reagent through catch and release strategy	20th ISCB International conference on recent advances and current trends in chemical and biological sciences, organized by Department of Chemistry, University of Delhi, New Delhi.	International	2014
118.	S. Kumari, S.M A. Shakoor, R. Sakhuja	Amino Acid/peptides based Fluorescent Labels : Synthesis and Photo-physical studies	National conference on nano and functional materials (NFM-14), organized by Department of Chemistry, BITS, Pilani, Plani Campus, Rajasthan	National	2014
119.	Shiv dhiman, Kasiviswanadharaju Pericherla, Nitesh K. Nandwana, Dalip Kumar and Anil Kumar	Palladium-catalyzed cross aldol/intramolecular direct arylation: An easy access to aza-fused isoquinolines	International Symposium on "Recent Advances in Medicinal Chemistry" held at NIPER-S.A.S. Nagar	International	2014
120.	Pinku Kaswan, Kasiviswanadharaju Pericherla, Hitesh Kumar Saini, and Anil Kumar	Tandem one-pot, three-component reaction of methyl ketones, aldehydes and 2-aminopyridines for the synthesis of 3-arylimidazo[1,2-a]pyridines	International Symposium on "Recent Advances in Medicinal Chemistry" held at NIPER-S.A.S. Nagar	International	2014
121.	P. Shukla, A. Sharma, and B. Pallavi.	Design and Synthesis of Pyrazolopyran Derivatives Possessing Anticancer Activities Targeting Receptor Aurora Kinases	National Conference on Recent Trends in Research in Chemical Sciences (RTRSC2014), organized by the Dept. of Chemistry, Manipal University, Jaipur, Rajasthan	National	2014
122.	Dinesh Kumar and Dr. Prashant Uday Manohar	Equation-of-motion coupled-cluster methods and demonstrated the EOM-CC job logistics by discussing specific examples for creating an input file for Q-Chem job and analysis of the output file.	IISER, Pune	National	2014
123.	Dinesh Kumar and Dr. Prashant Uday	Some cost-effective intermediate variants of coupled-cluster based	Theoretical Chemistry Symposium (TCS 2014) organized by National	National	2014

		methods for open-shell states of molecules	Chemical Laboratory, Pune		
124.	Indresh Kumar		International Symposium (Iscbc-2015) Current Trends In Drug Discovery And Developments At CDRI-Lucknow	International	February, 25-28, 2015
125.	Indresh Kumar		National Conference On Recent Advancements In Chemical Sciences (Raics 2015) At Mnit Jaipur	International	August 21-23, 2015
126.	Subit Kumar Saha		National Conference on "Frontiers at the Chemistry - Allied Sciences Interface (FCASI-2015)" at University of Rajasthan, Jaipur	National	March 13-14, 2015
127.	SurojitPande		National Conference on "Frontiers at the Chemistry - Allied Sciences Interface (FCASI-2015)" at University of Rajasthan, Jaipur.	National	March 13-14, 2015
128.	Ram Kinkar Roy		The 14 th Theoretical Chemistry Symposium (TCS-2014), organized jointly by CSIR-NCL, Pune and IISER, Pune.	National	December 18-21, 2014
129.	Ram Kinkar Roy		Frontiers in Electronic Structure Theory (FEST-15), Hotel Bogmallo beach resort, Goa.	National	May 26-28, 2015
130.	Dalip Kumar, Manish Kumar Mehra, Mukund P Tantak, Indresh Kumar	"An Expeditious Synthesis and Anticancer activity of 2-Arylamino-5-(Indolyl)-1,3,4-Oxadiazoles	21 st International ISCB Conference on Current trends in drug discovery and developments: CDRI, Lucknow, India,	International	February 25-28, 2015
131.	Dalip Kumar, MeenakshiPilania	Cu-Catalyzed Coupling of <i>N</i> -Tosylhydrazones with Various Amino Heterocycles: Synthesis of <i>N</i> -Benzylaminoheterocycles	21 st International ISCB Conference on Current trends in drug discovery and developments: CDRI, Lucknow, India,	International	February 25-28, 2015
132.	Mukund P Tantak, Anil Kumar, RachnaSadana, Dalip Kumar,	Design and Synthesis of Bis(indolyl) ketohydrazide-hydrazones as Potent and Selective Novel Tubulin Inhibitors	21 st International ISCB Conference on Current trends in drug discovery and developments: CDRI, Lucknow, India,	International	February 25-
133.	P O Venkataramana Reddy, Mukund P Tantak, Dalip	Synthesis and <i>in-vitro</i> Anticancer Activity of α -CyanoBis(Indolyl)Chalcones	21 st International ISCB Conference on Current trends in drug discovery and developments:	International	February 25-28, 2015

	Kumar		CDRI, Lucknow, India,		
134.	Santosh B Khandagale, Bhupendra A Mishra, K P Chandra Shekar, Dalip Kumar	Synthesis and Photophysical Studies of Novel Triazolo Fused- porpyrins	21 st International ISCB Conference on Current trends in drug discovery and developments: CDRI, Lucknow, India,	International	February 25- 28, 2015

23. Details of patents and income generated

Details of Patents	Income generated
D. Kumar, G. Patel, Sulfoximine Derivatives as Anticancer Agents, 2011 (Indian Patent filed).	-N/A-

24. Areas of consultancy and income generated: -N/A-

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

Name of the Faculty	National/ International	Laboratories/institutions/industry
Prof. Dalip Kumar	International	Department of Chemistry, Department of Energy and Hydrocarbon Chemistry Graduate School of Engineering, Kyoto University, Japan
Dr. Surojit Pande	International	Materials Chemistry Laboratory, Department of Chemistry, National Taiwan University, Taipei, Taiwan
Dr. Surojit Pande	National	Nano Research Lab, Surface Engineering Division, National Aerospace Laboratories, Bangalore
Prof. Dalip Kumar	International	Department of Chemistry, Kumamoto University, Japan
Prof. Anil Kumar	International	Department of Pharmaceutical and Biomedical Science, College of Pharmacy, University of Rhode Island, Kingston, USA
Prof. Anil Kumar	International	Department of Chemistry, Acadia University, Halifax, Canada
Prashant Uday Manohar	International	Department of Chemistry, University of Southern California, Los Angeles, CA, USA
Prashant Uday Manohar	National	National Chemical Laboratory, Pune
Shamik Chakraborty	National	Saha Institute of Nuclear Physics, Calcutta.
Shamik Chakraborty	National	Calcutta University, Calcutta.
Shamik Chakraborty	National	National Institute of Science Education and Research, Bhubaneswar.
Prof. Ram Kinkar Roy	International	Advanced Institute of Computational Science, (RIKEN), Kobe, Japan.
Dr. Indresh Kumar	National	NIIST-Trivandrum (CSIR lab)
Dr. Indresh Kumar	National	VerGo-Pharma, Goa
Dr. Bibhas Ranjan Sarkar	National	Aditya Birla Science and Technology Company Pvt. Ltd. Mumbai - Corporate R&D Centre (2015)
Dr. Bibhas Ranjan Sarkar	National	Tata Powers, Chembur, Mumbai (2014) - Thermal Energy Plant

26. a) Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify):

Name of the Body / Academy	Position
The Open Catalysis Journal	Prof. Anil Kumar, Editorial Advisory Board Member
Chemistry & Biology Interface	Prof. Dalip Kumar, Associate Editor
Indian Society for Surface Science & Technology	Prof. Subit K. Saha, Life Member
The Indian Thermodynamics Society	Prof. Subit K. Saha, Life Member
Chemical Research Society of India, Bangalore	Prof. Dalip Kumar, Life member & Joint Secretary Prof. Anil Kumar, Life Member & Executive Member Dr. Indresh Kumar, Life Member
Indian Society of Chemists and Biologists	Prof. Dalip Kumar, Life member Prof. Anil Kumar, Life Member Dr. Indresh Kumar, Life Member
Indian Council of Chemists, Agra.	Prof. Anil Kumar, Life Member
Association of Carbohydrate Chemists and Technologists (India)	Prof. Ajay K. Sah, Life Member
Indian Science Congress Association, Kolkata	Dr. Surojit Pande, Life Member
American Chemical Society, Washington	Prof. Anil Kumar, Member Dr. Surojit Pande, Member Dr. Bibhas R. Sarkar, Member Dr. Prashant U Manohar, Member

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

No	Faculty	Type of program done (details)	Duration
1.	Dr. Paritosh Shukla	ITWA conducted in BITS-Pilani	Sept 2010
2.	Dr. Prashant Uday Manohar	Q-Chem workshop at IISER, Pune (delivered a talk)	December 2014
3	Dr. Indresh Kumar	ITWA conducted in BITS-Pilani	Feb 2012
4	Dr. Indresh Kumar	Industry immersion program at VerGO Pharma	May-July 2015
5.	Dr. Bibhas R. Sarkar	ITW conducted in BITS Pilani	Semester-I, 2013
6.	Dr. Bibhas R. Sarkar	Interdisciplinary Research Workshop at BITS-Goa Campus, Goa	November 2014
7.	Dr. Bibhas R. Sarkar	Industry Immersion Program at Aditya Birla Science and Technology Company Pvt. Ltd. Mumbai	June-July 2015
8.	Prof. Bharti Khungar	Worked at Bhabha Atomic Research Centre, Mumbai as IASc-INSa-NASi Summer Research Fellow 2013 and 2014	17 May 2013 - 14 July 2013
9.	Prof. Bharti Khungar	Worked at Bhabha Atomic Research Centre, Mumbai as IASc-INSa-NASi Summer Research Fellow 2013 and 2014	20 May 2014 - 13 July 2014
10.	Prof. Bharti Khungar	Workshop on Introduction to Gaussian: Theory and Practice, New Delhi	January 6-10, 2014
11	Prof. Bharti Khungar	International Training Program on Leadership and Career Development for Women Scientist & Technologists conducted by DST, New Delhi	September 1-5, 2014
12	Prof. Bharti Khungar	Member, ITW Organizing Faculty	February-November 2010
13	Prof. Subit Kumar Saha	Member, ITW Organizing Faculty	18 September

			2014 - 20 November 2014
14	Dr. Rajeev Sakhuja	ITWA conducted in BITS-Pilani	Semester-1, 2013
15	Dr. Rajeev Sakhuja	University Benchmarking workshop Organized by BITS Pilani in Gurgaon for setting up Goals for Imperative Internationalization	24 August 2013 -25 August 2013
16	Dr. Shamik Chakraborty	ITW conducted in BITS Pilani	Semester-I, 2013
17	Dr. Surojit Pande	ITW conducted in BITS Pilani	Semester-I, 14/09/2013 to 14/11/2013
18	Dr. Surojit Pande	Industry immersion at National Aerospace Laboratories, Bangalore	8 June to 16 July 2015
19	Prof. Inamur Rahaman Laskar	Workshop on Introduction to Gaussian: Theory and Practice (Hotel Connaught New Delhi)	December, 17-21, 2012
20	Prof. Anil Kumar	Refresher Course in Chemistry, Department of Chemistry, GJUST Hisar (Resource person)	6.5.2014
21	Prof. Dalip Kumar	Refresher Course in Chemistry, Department of Chemistry, GJUST Hisar (Resource person)	6.5.2014
22	Prof. SC Sivasubramanian	Refresher Course in Chemistry, Department of Chemistry, GJUST Hisar (Resource person)	6.5.2014
23	Dr. Madhushree Sarkar	Project title: Guest Exchange Dynamics of Porous Metal-organic Frameworks; BITS Pilani, Seedgrant (14.65 lacs), 2011	April 2011- March 2013
24	Dr. Surojit Pande	Project title: Synthesis and Characterization of Metal Oxide (TiO ₂ and IrO ₂) Dendrimer-Encapsulated Nanoparticles (DEN) for Catalysis and Electrocatalysis, BITS RIG, BITS Pilani, 2 lacs	2012-2014
25	Dr. Rajeev Sakhuja and Dr. Anil Kumar	Project title: Design of Ionic Liquid linked Benzotriazoles as Useful Synthetic Auxiliaries in Organic Synthesis; BITS SEED Grant, 9.8 lacs	10-02-2013 to 09-02- 2015
26	Dr. Rajeev Sakhuja	Project title: Design & Synthesis of Bile acid-Nucleosides conjugates linked via amino acids as potential anticancer agents; BITS Seed grant; 2 lacs	22-05-2012 to 21-05- 2014
27	Dr. Indresh Kumar	Project title: Organocatalytic cascade towards substituted Pyrrole-3-carboxyaldehydes: A variation in Paal-Knoor Pyrrole Synthesis; BITS Pilani (RGI); 2 lacs	2012-2014
28	Dr. Paritosh Shukla	Project title: Transition metal-catalysed Coupling/Reductive Coupling of saturated Alkyl halides with Electron Withdrawing Alkenes; BITS Pilani (RGI); 2 lacs	2011-2013
29	Dr. Surojit Pande	Project title: Graphitic carbon nitride (g-C ₃ N ₄) based semiconductor heterostructures for catalysis and electrocatalysis. PLN/AD/2014-15/June/04; 6.95 lacs; BITS Pilani	01-07-2015 to 30-06- 2017
30	Dr. Paritosh Shukla	Project title: Detection of contaminants in water using functional ultrathin films" Sponsored by BITS Pilani under Waste Water Energy; BITS Pilani, WWE; 10.32 lacs	2/1/2014 to- 31/1/2017
31	Dr. Bibhas R. Sarkar	Project title: Catalytic Route to Linear Alkyl Benzenes (LABs) via C-C Coupling Reactions using Transition Metal Catalysts; BITS Pilani, 2 lacs	2013-2015

28. Student projects

- Percentage of students who have done in-house projects including inter-departmental projects: 100%
- percentage of students doing projects in collaboration with other universities/industry / institute 100%

29. Awards / recognitions received at the national and international level by Faculty

S. No.	Name	Award type; detail	Date
1.	Prof. Anil Kumar	Dr. Arvind Kumar Memorial Award, Indian Council of Chemists, Agra, India	December 2014
2.	Prof. Anil Kumar	ISCB Young Scientist Award, (Chemical Sciences), Indian Society of Chemists and Biologists, Lucknow, India	February 2014
3.	Prof. Anil Kumar	Three Year American Chemical Society Membership Award, American Chemical Society, Washington DC, USA	August 2015
4.	Prof. Anil Kumar	Harrison McCain Foundation Award for visiting professorship from Acadia University, Canada.	December 2012
5.	Dr. Indresh Kumar	Awarded "Outstanding Potential for Excellence in Research and Academics (OPERA)" from BITS Pilani	January 2015
6.	Dr. Indresh Kumar	Award for the Best Oral presentation during FPCBS-2013 at Pune University, Pune	October 2013
7.	Dr. Indresh Kumar	Award of "INSA-Visiting Scientist Fellowship-2013" by INSA-New Delhi.	June-July 2013
8.	Dr. Indresh Kumar	Award of Best Poster presentation during International Symposium on "Chemistry and Chemical Biology of Natural Products" (CCBNP-2012) at IICT-Hyderabad (2012)	August-2012
9	Prof. Dalip Kumar	Honorary Diploma by International Charitable Foundation "Scientific Partnership" of Russia	March 2013
10	Prof. Bharti Khungar	'Summer Science Academies' Research Fellowship 2013 to visit Bhabha Atomic Research Centre, Mumbai.	
11	Prof. Inamur R. Laskar	Best oral award at National Conference on Advances in Chemical Sciences-2013, M. D. University, Rohtak	March, 1-2, 2013.

Doctoral Students

S. No.	Name	Award type; detail	Date
1	Amit Kumar Tiwari	Joint Second prize in the poster presentation in the National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS-2011) organized by Maharshi Dayanand University, Rohtak, November 02-04, 2011.	2-4 November 2011
2	Parvej Alam	Award of the best Poster presentation during Symposium on Advances in chemistry, held at BITS-Pilani	March, 2011
3	Sonu	Joint Second prize in the poster presentation in the National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS-2011) organized by Maharshi Dayanand University, Rohtak during November 02-04, 2011.	2-4 November 2011
4	Amit Kumar Tiwari	Awarded Senior Research Fellowship by CSIR New Delhi.	2012

5	Amit Kumar Tiwari	Second prize in the oral presentation on "Study on binding interactions of a hemicyanine dye with nanotubes of β -cyclodextrin and effect of a Hofmeister series of potassium salts on it" presented in the Symposium on Recent Trends in Chemical Sciences, BITS Pilani..	25 March, 2012.
6	Amrit Kumar Tiwari	Awarded, Senior Research Fellowships, by CSIR, New Delhi	2012
7	Archana Choudhary	Received best oral presentation award on "Design And Synthesis of Nanostructural Heterogeneous Catalyst And Characterization" presented in the 4 th National Symposium for Material Research Scholars, IIT Bombay	May 4-5, 2012
8	Ashok Sharma	Received best poster award on "Nickel catalyzed reductive Heck reaction" presented in the Symposium on Recent Trends in Chemical Science at BITS, Pilani	25-Mar-12
9	Manoj Kumar Muthyala	Awarded, Senior Research Fellowships, by CSIR, New Delhi	2012
10	Manoj Kumar Muthyala	Received third prize in the oral presentation award on "Ionic liquid supported synthesis of azaheterocycles" presented in the Symposium on Recent Trends in Chemical Sciences, BITS Pilani	25-Mar-12
11	N. Maruthi Kumar	Received best poster award on "Synthesis and anticancer activity of novel 5-(3-indolyl)-1,3,4-thiadiazoles" Symposium on Recent Trends in Chemical Science, BITS-Pilani	March 25, 2012.
12	Sonu	Best oral presentation award on "Effect of Solvents and pH on Intramolecular Charge Transfer Fluorescence Properties of trans-2-[4'-(N,N'-dimethylaminostyryl)]pyridine" presented in Chemical Constellation Cheminar – 2012 (CCC-2012) (An International Conference), Department of Chemistry, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab.	10-12 September, 2012
13	Sonu	Received best poster award on "Study on Intramolecular Charge Transfer Fluorescence Properties of trans-4-[4'-(N,N'-dimethylamino)styryl]pyridine in Homogeneous and Non-ionic Micellar Medium" presented in the Symposium on Recent Trends in Chemical Science at BITS, Pilani	March 25, 2012
14	V Kameswara Rao	Awarded, Senior Research Fellowships, by CSIR, New Delhi	2012
15	Khima Pandey	Qualified CSIR-UGC NET exam and received Junior Research Fellowship from UGC, New Delhi.	
16	Mr. Kasiviswanadh araju Pericherla	Received best oral presentation award for the paper entitled "regioselective synthesis of 1,2,3-triazole fused imidazo[1,2-a]pyridines via copper catalyzed tandem azide-alkyne cycloaddition, Ullmann-type C-N coupling, and intramolecular direct arylation" at International Conference on Emerging Trends in Chemical Sciences held at VIT University, Vellore-632 014, Tamil Nadu	December 5-6, 2013.
17	Parvj Alam	Received best oral presentation on "Tuning of Aggregation Induced Enhanced Phosphorescent Emission in a Common Framework of Cyclometalated Iridium(III) Complexes and their Applications as Probe in cellular Imaging" symposium on 5 th National Symposium for Materials Research Scholars, MR-13, IIT Bombay	May 8-10, 2013.

18	Sonu	Interaction between gemini surfactants and bovine serum albumin: The spacer group effect” International Conference on Interdisciplinary Areas With Chemical Sciences 2013 (ICIACS-2013), Panjab University, Chandigarh	30 October -1 November 2013
19	Amrit Sarmah	Selected by Weizmann Institute of Science, Israel for a fully funded week-long visit to Israel to share his research work.	2014
20	Amrit Sarmah	Received RSC travel grant to attend the Faradays Discussion 173 in London	2014
21	Fayaz Baig	Received third prize in the poster presentation in the National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan	7-8 November 2014
22	Ganesh M. Shelke	Awarded, Senior Research Fellowships, by CSIR, New Delhi	
23	Kumari Suman	Received second prize in the oral presentation in the National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan,	7-8 November 2014
24	Mukund Tantak	Received First Prize for his poster presentation in the "National Conference on Emerging Areas of Chemical Education and Research and National Convention of Chemistry Teachers" (NCCT 2014) organized by IIS University	October 16-18, 2014.
25	P.O. Venkataraman a Reddy	Received the first best poster presentation award in the national conference on "Recent Developments in Chemical Sciences" organized by Guru Jambheshwar University of Science and Technology, Hisar	February 25-26, 2014
26	Parvej Alam	Award of the best oral presentation during National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan	November, 2014
27	Pragati Fageria	Award of the best poster presentation during National Conference on Nano- and Functional Materials (NFM-2014), organized by Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan	November, 2014
28	V. Arun	Awarded, Senior Research Fellowships, by CSIR, New Delhi	2014
29	Parvej Alam	Award of the best poster 21 st ISCB International Conference (ISCBC-2015) on “Current Trends in Drug Discovery and Developments” held at Central Drug Research Institute, Lucknow	February, 2015

Post doctoral fellows: Nil

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

- National Conference on Green and Sustainable Chemistry, February 19-21, 2010
- One-day ‘Symposium on Advances in Chemistry’ on March 26, 2011 to celebrate the year 2011 as the year of Chemistry. This event was supported by University Grants Commission, New Delhi.
- National Conference on Nano- and Functional Materials (NFM 2014), November 7-8, 2014.

31. Code of ethics of research followed by the Department.

The department follows the code of ethics specified by the Institute

32. Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
First Degree					
2010-2011	14662	49	12	100	100
2011-2012	12880	49	12	100	100
2012-2013	15174	49	10	100	100
2013-2014	15120	49	06	100	100
2014-2015	18717	56	14	100	100
PhD					
2010-2011	Data not maintained				
2011-2012					
2012-2013	45	3	2		
2013-2014	59		3		
2014-2015	37	1	3		

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Integrated MSc	0			
PhD	0	34	66	0

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.
4 (NET: 3; SET: 1)

35. Student progression

Sr. No.	Student progression	Percentage against enrolled
	UG to PG	The graduate students choose different streams of career and this data is not maintained by the department.
	PG to M.Phil.	
	PG to Ph.D.	
	Ph.D. to Post-Doctoral	
	Employed Campus selection Other than campus recruitment	
	Entrepreneurs	

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	0
from other universities within the State	11.11 % (2 out of 18)
from universities from other States from universities outside the country	88.89% (16 out of 18)

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: Zero

38. Present details of departmental infrastructural facilities with regard to f) Library

The Library at BITS, Pilani is a gateway to knowledge resources. The Library complex which is an architectural marvel, with a palatial ambience, comprises of an area of 65000 square feet and is designed to provide several reading halls, display cum exhibition rooms, E-Zones for easy and convenient access to online resources and reference to journals and web resources, apart from a large area embarked for book storage.

The Library is equipped with the most modern IT infrastructure taking into consideration the present and future needs of the library users. The present seating capacity is about 750 seats, The library is Wi-Fi whereby users can access the internet using their Laptops.

Currently, the library has a collection of 2,38,000 books and subscribes to over 260 print journals covering national and foreign periodicals. Library is subscribed to 31 Online Databases including UGC- IFLIBNET E – Resources This Provides access to over 11000 high quality Journals and e-books in engineering, management, computer science and humanities subjects.

The BITS library has collection of 4818 chemistry books, six print journals are subscribed in the current year and the library has access to 464 E-journals related to chemistry from the following databases

- American Chemical Society - 55
- Annual Reviews – 3
- JSTOR - 1
- OUP Archive - 1
- Portland Press - 5
- Royal Society of Chemistry -29
- RSC Archive - 70
- ScienceDirect (10 Subject Collection) - 128
- Springer Link – 160
- Wiley Inter-science – 12

g) Internet facilities for staff and students

Internet facilities for staff and students: All staff and students have been provided with wi-fi facilities in their labs as well as their departmental common room. All

departmental staff also has LAN facilities in their offices provided by the institute.

h) Students' laboratories

1. General Chemistry Laboratory
2. Chemical Experimentation-I
3. Chemical Experimentation-II
4. Instrumental Methods of Analysis

These laboratories house following equipments

Heidolph rotavapor = 3	Rectangular hot plate = 1
Vacuum pump = 4	Electronic weighing balance = 4
Hot air oven = 2	Microcentrifuge = 2
pH meter = 13	UV-spectrophotometer = 2
conductivity meter = 13	FT-IR spectrophotometer = 1
spectrophotometer = 13	Hand held potentiostat = 1
UV-hand held lamp = 3	Focused microwave = 1
Ultrasonic cleaner = 1	Refrigerator = 2
Water bath = 3	Julabo chiller = 3
Magnetic stirrer with hot plate (IKA) = 10	2kVA UPS = 10

i) Research laboratories (Need equipment wise)

- I. Green Chemistry
- II. Inorganic Chemistry
- III. Photochemistry
- IV. Physical Chemistry
- V. Organic Chemistry
- VI. Computational Chemistry

These laboratories house following equipments

No.	Faculty	Equipments/instruments etc from projects
1	NMR 400 MHz (Brucker)	1
2	Analytical HPLC (Waters)	1
3	IR spectrophotometer	1
4	UV-Vis Spectrophotometer	3
5	Fluorescence spectrophotometer	1
6	Time resolved spectrophotometer	1
7	Gas chromatography	1
8	Focused microwave	1
9	Rotary Evaporator	10
10	Weighing Balance	6

11	Hot Plate	1
12	Magnetic Stirrer with Hot Plate	45
13	Vacuum Pump	10
14	Hydrothermal Reactor (Autoclave)	1
15	Refrigerator	10
16	Handheld UV lamp	6
17	UV-Vis Spectrophotometer with integrating sphere	1
18	Julabo temperature controller	1
19	Surface tensiometer, Combined pH and conductometer	1
20	Muffle Furnace	3
21	Flash chromatograph	2
22	x3530 M4 Special Build Server (IBM): 4 x hexacore Intel 64-bit processors, 4 X 600 GB HDD, 160 GB RAM, etc.	1
23	3 kVA UPS (Eaton)	1
24	Fraction Collector	2
25	Spin coater 91 piece	1
26	CHI potentiostat Electrodes/electrode polisher	1
27	Sonicator	1
28	Heating mantle	2
29	pH meter	4
30	Air oven	3
31	Centrifuge	2

39. List of doctoral, post-doctoral students and Research Associates

- a) from the host institution/university
b) from other institutions/universities

Sr. No.	ID. No	Name of the candidate	Sr. No.	ID. No	Name of the candidate
1	2010PHXF009P	ASHOK SHARMA	6	2011PHXF017P	PARVEJ ALAM
2	2010PHXF416P	TANTAK MUKUND PANDURANG	7	2011PHXF018P	V ARUN
3	2010PHXF420P	NOORULLAH BAIG MD	8	2011PHXF020P	PANKAJ NEHRA
4	2010PHXF426P	ARCHANA CHOUDHARY	9	2011PHXF021P	SUNITA

5	2011PHXF015P	SHELKE GANESH MAHADEORAO	10	2011PHXF022P	MEENAKSHI PILANIA
11	2011PHXF024P	POONAM KHEDAR	29	2013PHXF019P	KHANDGALE SANTOSH BHAUSAHEB
12	2012PHXF016P	RAJINDER SHIVRAN	30	2013PHXF020P	SAROJ
13	2012PHXF018P	S M ABDUL SHAKOOR	31	2013PHXF406P	SHIV DHIMAN
14	2012PHXF020P	NISAR AHMAD MIR	32	2013PHXF408P	SUSHEELA KUMARI
15	2012PHXF021P	RAMARAJU P	33	2013PHXF425P	NITESH KUMAR NANDWANA
16	2012PHXF024P	SHEIK SALEEM PASHA	34	2013PHXP401P	MANISH KUMAR MEHRA
17	2012PHXF026P	PINKU	35	2013PHXP419P	DEVESH S AGARWAL
18	2012PHXF409P	P.O. VENKATA RAMANA REDDY	36	2014PHXP003P	SONAM SHARMA
19	2012PHXF410P	FAYAZ BAIG	37	2014PHXP013P	VIMAL KUMAR MADDULURI
20	2012PHXF411P	SANTOSH KUMARI	38	2014PHXP014P	VAISHALI SAINI
21	2012PHXF420P	B. PALLAVI	39	2014PHXP015P	KACHWAL VISHAL
22	2012PHXF425P	DINESH KUMAR	40	2014PHXP406P	AABID HAMID
23	2012PHXF426P	ANOOP SINGH	41	2014PHXP407P	BIJOYA DAS
24	2012PHXF427P	SACHIN CHOUDHARY	42	2014PHXP408P	MOYNA DAS
25	2012PHXF428P	HITESH KUMAR SAINI	43	2009PHXF409P	SONU
26	2013PHXF015P	ROSHAN NAZIR	44	2010PHXF422P	KUMARI SUMAN
27	2013PHXF016P	SUNITA KUMARI	45	2012PHXF017P	PRAGATI FAGERIA
28	2013PHXF017P	KHIMA PANDEY			

40. Number of post graduate students getting financial assistance from the university. NIL

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Yes, we are almost in the final stage to design ME two years Material Science program. The methodology to design this program is given in below:

- A committee at departmental level was formed; they collected relevant data from the different universities (national and abroad) websites who runs the Material Science program
- It was shared to all the faculties at the department level and framed the structure of the course and the handouts.
- Then these were shared with the several other departments (Physics / Biology / Chemical Engineering / Mechanical engineering) in this campus and across the campuses and collected the feedback.
- Presently we are waiting to bring this matter in the senate

42. Does the department obtain feedback from

- a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, Departmental Academic Committee provides the valuable suggestions related to the existing course curricular activities for the improvement. A rigorous discussion on course curricular activities happen with all the faculty members for the improvement on course structure of the existing courses, contents etc. prior to beginning of each semester. Additionally, we have a departmental Student Faculty Council (SFA) where a committee is formed including a few experienced faculty members along with several students year wise. Faculty members involved in SFA collect information from these students regarding the running courses and inform the concerned faculty of a particular course for their valued suggestions.

- b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, we get student feedback on various issues through instruction division (online 24 × 7 Feedback system and end semester feedback). In addition to this a Student Faculty Council (SFC) consisting of five faculty member and fifteen students discuss the issues related to course structure, instruction, evaluation etc. The the issues raised by students are further discussed in department meetings.

- c. alumni and employers on the programmes offered and how does the department utilize the feedback?

Not structured, however at institute level we have alumani affair division and alumni visit department during their annual or jubilee meetings and interact with faculty members. Head of the Department is invited to interact with the alumni during their visits and suggestions and comments provided by them regarding course contents, need for new course etc. are discussed in department.

43. List the distinguished alumni of the department (maximum 10)

1. Prof. Goverdhan Mehta, FNA, FRS, National Research Professor, School of Chemistry, University of Hyderabad
2. Prof. Yashonath Subramanian, FNA, FASc., a professor in Theoretical Chemistry at Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

There is weekly departmental seminar, where Ph. D students share their research work besides this department invites eminent scientists across the country or abroad for sharing their experiences.

45. List the teaching methods adopted by the faculty for different programmes.

The faculty members of the department adopt different type of teaching methods depending on the need of the course, students and strength of the class. In general classes are conducting in rooms having projectors and computer for power point presentation. Faculty member also uses chalk and board/white board during their presentation. Each first degree course has one hour tutorial to solve student problems in the sub Department has well equipped laboratories and the students are provided enough opportunity to perform experiments on advanced equipments like HPLC, IR, UV-visible, focused microwave, polarimeter, NMR, potentiostate, spectrofluormeters etc.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Continuous evaluation through quiz and assignments are conducted to make sure that the learning outcomes of the courses are met.
- By 24×7 & end semester feedback from students
- By evaluating the on-campus placement and inputs from placement companies.

47. Highlight the participation of students and faculty in extension activities.

Chemistry Association, a student body whose members are selected by students and guided by a faculty member (Professor-in-charge) conducts several activities such as visit to laboratories, Apogee Project Meets where projects for APOGEE are selected and then students are guided for these projects, Who-Dunnit and Dexter's Lab during APOGEE, invited lecture by eminent personalities. Students are also encouraged to do different type of projects viz. study project, laboratory project, and design project.

48. Give details of "beyond syllabus scholarly activities" of the department.

Department organizes seminars/conferences on recent trends in chemical sciences at regular intervals. Faculty members also participate and deliver invited lecture at national and international conference.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. –No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- Faculty members of the department are actively involved in research in the forefronmt areas of the chemical sciences.
- The research work is published in high impact journals of repute.
- Faculty member participate in national and international conferences as well as in workshops as resource person.
- Students/faculty members share their experiences in the department after participating in a seminar/ conference.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

STRENGTH:

- Dedicated and interactive faculty members possessing international experience.
- Improving quality of basic research in wide areas of chemistry.
- Good number of research projects funded through government agencies.
- Wide range of courses and electives offered in the curriculums, which are monitored and updated time-to-time as per the requirement and interest.
- Student to faculty ratio is very good in the Department.

WEAKNESS:

- Moderate funding from industrial organizations.
- There is a need to develop advanced and sophisticated research facility.
- Due to remoteness good quality and large number of students do not apply for Ph.D. programme.
- Moderate technical support for laboratories classes.

OPPORTUNITIES AND CHALLENGES

- Industrial, National & International collaborations and projects through PS & Off-Campus collaborative Institutions and personal contact basis.
- Inter-departmental and inter-institutional research collaborations.
- Inter-campus collaborative research, sharing facilities.
- Faculty exchange at National and International level.
- Organization of short term training/summer projects/ workshops for outside students and industry personal.

52. Future plans of the department.

- To introduce new ME Material Sciences programme
- To strengthen research activity of the department by increasing number of PhD students to 75.
- To bring more funding from government agencies as well as industry for research and equipments.
- To establish Industrial collaboration through research projects.
- To strengthen interdisciplinary and applied research.
- To improve infrastructure for teaching and research.

53. Any other information regarding your department which you would like to include.

Faculty members of department are reviewers of internationally reputed journals (published by ACS/RSC/Elsevier/Wiley/Springer etc). They are invited to chair sessions and deliver invited lectures in various conferences in India and abroad. Few faculty members also delivered lecture in Navodya Vidyalaya Kajari and CEERI Vidya Mandir to popularise science among school children.

**Pilani Campus: Evaluative Report of the Department
CIVIL ENGINEERING**

1. **Name of the Department** :Civil Engineering Department
2. **Year of establishment of the Department:** 1959
3. **Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

Year(s)	Degree Programmes offered
2010-11 to 2014-15	<ul style="list-style-type: none"> • B.E. (Hons.) Civil • M.E. Civil with specialisation in: • Structural Engineering • Infrastructure Systems • Transportation Engineering • Ph.D.

5. **Interdisciplinary programmes and departments involved :** No
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons:** NONE
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**
 - Engineering Graphics (with Mechanical Engineering Department)
 - Epidemic & Disaster Management (with Department of Pharmacy)
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Senior Professor	Note:**	02	02
Professor		02	02
Associate Professors		03	03
Asst. Professors		15	07
Others			
• Lecturers		3	2
• Visiting Faculty		1	0

Note**: The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and

proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./M.Phil. students guided for the last 5 years
1.	Prof. Manoj Kumar	Ph.D.	Associate Professor & Head of Department	Structural Engineering	13	1 (submitted) + 1 (ongoing)
2.	Prof. Ashoke Kumar Sarkar	Ph.D.	Senior Professor & Director, Pilani Campus	Transportation Engineering	30	1 (completed) + 3 (ongoing)
3.	Prof. Rajiv Gupta	Ph.D.	Senior Professor	GIS and Water Resources	28	1 (completed) + 3 (ongoing)
4.	Prof. Shamsher Bahadur Singh	Ph.D.	Professor	Structural Engineering	27	2 (completed) + 4 (ongoing)
5.	Prof. Ajit Pratap Singh	Ph.D.	Professor	Environmental & Water Resources Engg	22	4 (ongoing)
6.	Prof. Anshuman	Ph.D.	Associate Professor	Soil Structure Interaction	19	1 (ongoing)
7.	Prof. Ravi Kant Mittal	Ph.D.	Associate Professor	Geotechnical Engineering	18	2 (ongoing)
8.	Dr. Anupam Singhal	Ph.D.	Assistant Professor	Environmental Engineering	17	3 (ongoing)
9.	Dr. Kamalesh Kumar	Ph.D.	Assistant Professor	Geotechnical Engineering	21	--
10.	Dr. Sanghamitra Kundu	Ph.D.	Assistant Professor	Environmental Engineering	9	1 (ongoing)
11.	Dr. Dipendu Bhunia	Ph.D.	Assistant Professor	Structural Engineering	10	2 (ongoing)
12.	Dr. S. N. Patel	Ph.D.	Assistant Professor	Structural Engineering	9	1 (ongoing)
13.	Dr. Shibani Khanra Jha	Ph.D.	Assistant Professor	Water Resources and Environmental Engineering	6	1 (ongoing)
14.	Dr. Amit Goel	Ph.D.	Assistant Professor	Transportation Engineering	7	1 (ongoing)
15.	Mr. G Muthukumar	M.E.	Lecturer	Structural Engineering	10	--

16.	Mr. R. Srinivas	M.E.	Lecturer	Infrastructure Systems	0.5	--
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12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

- Senior Visiting Fellow
 - Prof. Roger P. West (Associate Professor, Department of Civil and Environmental Engineering, University of Dublin, Trinity College, Ireland) (visited BITS Pilani for 3 months)
- Adjunct Faculty
 - Prof. S. K. Bhattacharya (Director, CSIR-Central Building Research Institute, Roorkee)

13. Percentage of classes taken by temporary faculty – programme-wise information

2.5% (during 2011-12)

14. Programme-wise Student Teacher Ratio

Programme	Student Teacher Ratio
B.E. (Hons.) Civil	15:1
M.E. Civil	1.84:1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

- Academic support staff - 3
- Administrative staff – 1

16. Research thrust areas as recognized by major funding agencies

- Dynamic Instability of Laminated Composite
- Advanced Composites materials for Construction & Rehabilitation
- Concrete Technology & durability of concrete structures
- Live Load Characterization for bridge design and evaluation
- Earthquake Resistant Design of structures
- GIS & Remote sensing applications in civil Engineering
- Ground Improvement Techniques
- Solid waste management and sustainable utilization
- Transport Planning
- Traffic Engineering and Safety
- Advanced water & waste water treatment
- Energy Efficient Building
- Water Quality Modeling using Soft computing
- Computational Fluid Dynamics
- Analysis of structures subjected to extreme loads

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed projects:

S.L N.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Failure and Stability of Laminated Composite Plates with Cutouts	S. B. Singh	K.K. Birla Academy Projects, BITS, Pilani	4.50	2007-10
2	Response and micromechanics Based Design of Engineered Cementitious Composite Structures	S. B. Singh	DST, New Delhi,	17.70	2007-10
3	Experimental Investigation of Failure and Stability of Laminated Composite Plates with Cutouts	S. B. Singh	CSIR, New Delhi,	6.00	2007-12
4	Flexural Strengthening of Concrete Structures using Near Surface Mounted (NSM) Fiber Reinforcements	S. B. Singh	UGC, New Delhi,	9.30	2008-11
5	Sustainable High Performance Concrete Infrastructures	S. B. Singh	UKIERI Collaborative Research Award (UK and India)	20.84 (amount received by BITS) (Total Project Cost ₹337003)	2008-11
6	Design and development of Static Sunshade for thermal comfort inside the building	Rajiv Gupta	UGC, New Delhi	9.86	2010-12
8	GIS based characterization of ground water in Shekhawati region of Rajasthan	Anupam Singhal	DST, New Delhi	18.00	2011-2015
9	A study on sludge minimization during the treatment of pickling effluent and sludge utilization	Anupam Singhal	Aditya Birla Group	10.00	2011-2015
10	Aakash Ganga – A Social Enterprise Model for RWH and Agriculture of low water demanding economically important plant	Rajiv Gupta	DST, New Delhi	61.96	2011-15
12	Facility management using GIS and Genetic Algorithm	Rajiv Gupta	DST, New Delhi	19.99	2013-15
13	Strengthening of Local Soil using Fly Ash	Kamalesh Kumar	UGC, New Delhi	2.00	2013-15
	TOTAL AMOUNT (Rs in Lacs)			180.15	

Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Roof top Rainwater Harvesting for Safe, Potable and Healthy Drinking Water and Ground Water Replenishment for BITS Pilani, Pilani campus	Rajiv Gupta	BITS, Pilani, CoE-WWE	73.00	2014-17
2	Development of Copper Bio-Leaching methodology/technique from tailing waste at Hindustan Copper Limited, Khetri	Anupam Singhal	Ministry of Mines, New Delhi	30.00	2014-17
3	Potential of Marble Slurry as a Mineral Admixture in Concrete	Anshuman	DST, New Delhi	28.38	2014-17
4	Study of Structural Response and Strengths of Thin-Walled FRP Composite Girders," sponsored by Council of Scientific and Industrial Research	S. B. Singh	CSIR, New Delhi	18.00	2014-17
5	Development and Usage of Innovative Ductile Composite Materials for Repair and Retrofitting of Concrete and Masonry Structures	S B Singh	DST, New Delhi	23.50	2013-16
6	Investigation of the Effect of Carbonation on the Properties of Concrete	Dipendu Bhunia	DST, New Delhi	34.0	2012-15
7	Impact of PMGSY Roads on Accessibility in Rural Areas	A. K. Sarkar	NRRDA, Ministry of Rural Development, GOI	22.63	2013-15
8	Mobilization of Metals from Copper Mine Tailings of Khetri Copper Mine, Rajasthan and their Attenuation by Soil: Groundwater Pollution Implications	Sanghamitra Kundu	DST, New Delhi	11.27	2011-15
9	Road Safety Audit for Ringus-Sikar stretch of NH-11 (43.887 km)	Prof. A K Sarkar	National Highway Authority of India, (NHAI)	18.11	2013-18
11	Dynamic buckling response of composite structures	S. N. Patel	CSIR, New Delhi	11.52	2015-17
TOTAL AMOUNT				270.41	

Total Grant Received for Projects (completed+ ongoing) in last five years: Rs. 450.56 lakhs

18. Inter-institutional collaborative projects and associated grants received

- a) National collaboration: **None**
- b) International collaboration
 - Dr. Dipendu Bhunia, BITS Pilani and Prof. Roger P West of Trinity College of Dublin, Ireland worked on a project 'A Study on the Behaviour of Coupled Shear Walls in the Department of Civil and Environmental Engineering' Approx. cost of the project was Rs. 5,00,000/- (2.5 lakhs from TCD & Rs. 2.5 lakhs from BITS).
 - UKIERI Project, Collaborative Research Award (UK and India), £337003, 2008-2011, UK Research Team Leader: Prof. Ravindra K. Dhir OBE, Ex-Director, Applying Concrete Knowledge, UK, Professor of Concrete Engineering, University of Birmingham, UK. 'Anand' 1A Blakeney Avenue, Harborne Birmingham B17 8AP, UK, r.k.dhir@dundee.ac.uk.

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sl.No.	Project Title	Sponsored Organization	Amount sanctioned (Rs. in lacs)	Duration
1	Upgradation of Structural Engineering Research Facilities	DST-FIST	80.0	2012-17
2	UGC SAP Project	UGC	67.4	2012-17
3	DRS UGC – SAP	UGC	20.0	2012
	Total Amount Received		167.4	

20. Research facility / centre with

- State recognition
- National recognition
- International recognition

In last five years the departmental research labs have been upgraded to the level of State/National recognition with the help of funds received from government agencies such as DST and UGC in addition to BITS Pilani. The labs have excellent research facilities which help in attracting the sponsored research projects and consultancy works.

21. Special research laboratories sponsored by / created by industry or corporate bodies

None

22. Publications:

S N.	Details	Numbers
1.	Number of papers published in peer reviewed journals (National/ International)	108
2.	Number of papers published in conference papers (National/ International)	124
3.	Monographs	--
4.	Chapters in Books	03
5.	Edited Books	05
6.	Books with ISBN with details of publishers	03
7.	Number listed in International Database (e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	95
8.	Citation Index – range / average	0.1-0.67; 0.373

9.	SNIP – range / average	0.156- 8.81
10.	SJR – range / average	0.1-7.5
11.	Impact Factor – range / average	0.1-4.9/1.544
12.	h-index – range / average	9.923

Details of the publications as per the number given above (Give details in the last five years)

S.N.	Authors	Title of the Publications	Details of the Journals	National/ International	Year
1.	Manoj Kumar	Influence of Box Geometry on Shear Lag in RC Box-Girder Bridges	Indian Concrete Journal, 84(1), 15-20,	National	2010
2.	Rahul V. Ralegaonkar, Rajiv Gupta	Review of intelligent building construction: A passive solararchitecture approach	Renewable & Sustainable Energy Review, Elsevier, 14(8), 2238-2242	International	2010
3.	S. B.Singh and Madappa, V. R. Sivasbramanian	Micromechanics based design approach for ECC beam	Indian Concrete Journal, 84(12), 7-37	National	2010
4.	D. Kumar and S. B. Singh	Postbuckling strengths of composite laminate with various shaped cutouts under in-plane shear	Composite Structures, 92, 2966-2978	International	2010
5.	S. B. Singh and Kumar, Dinesh	Cutout Shape and Size Effects on Response of Quasi – Isotropic Composite Laminate Under Uni-Axial Compression	Structural Engineering Mechanics, 35(3), 335-348	International	2010
6.	D. Bhunia, V. Prakash and A.D. Pandey	Investigation into the behavior of Coupled Shear Walls	Structural Engineering International (IABSE), 20(3), 275-283	International	2010
7.	S. B. Singh, S. A. Priyadharshini, and K. K. Sharma	Torsional Strength of FRP Strengthened RC Beam	Int.Jl. of Earth Sciences and Engineering, 1(1), SPL, 258-263	International	2010
8.	S. .Singh, Madappa V.R. Sivasubramanian, Deepak M. Muniyandi, and Mikhil Gajjar	Experimental Study on Flexural Behaviour of High Ductile Cementitious Composites	Int. Jl. of Earth Sciences and Engineering, 3(3) SPL, 534-542	International	2010

9.	S. B. Singh and D. Kumar	Postbuckling Response and Failure of Symmetric Laminated Plates with Rectangular Cutouts under In-Plane Shear	Structural Engineering Mechanics, 34 (2), 175-188	International	2010
10.	D. Kumar and S. B. Singh	Effects of boundary conditions on buckling and postbuckling responses of composite laminate with various shaped cutouts	Composite Structures, 92, 769-779	International	2010
11.	Mittal R. K.	Use of Waste Tire-Chip for Improvement of Bearing Capacity of Sandy Soil with in Working Loads	Int. Jl. of Earth Sciences and Engineering, 3(3), 376-385	International	2010
12.	D. Bhunia, V. Prakash and A.D. Pandey	Investigation into the behavior of Coupled Shear Walls	Structural Engineering International, IABSE, 20(3), 275-283	International	2010
13.	S.N. Patel, P.K. Datta and A.H. Sheikh	Effect of harmonic in-plane edge loading on dynamic stability of stiffened shell panels with cutouts	Int. Jl. of Applied Mechanics, 2(4),759-785	International	2010
14.	V. Thamizh Arasan and Shriniwas S. Arkatkar	Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic	Highway Research Journal, Indian Roads Congress, IRC, 4(1), 51-68	National	2011
15.	Shriniwas S. Arkatkar and V. Thamizh Arasan	Micro-simulation Study of Vehicular Interactions on Upgrades of Intercity Roads in Heterogeneous Traffic	European Transport, 48, 1-29.	International	2011
16.	Ralegaonkar R. V. & Rajiv Gupta	Evaluation of a New Static Sunshade for Composite Climate using Experimentation	Int. Jl. of Engineering Research and Applications, 1(2), 251-258	International	2011
17.	Balaji P, Shriniwas S Arkatkar and Anupam Singhal	Impacts of Induced Travel on Indian Highway Projects: A Case Study	Int. Jl. of Earth Sciences and Engineering, , 4(6), 385-389.	National	2011

18.	Kothyari, U. C., Ramsankaran, RAAJ., Sathish Kumar, D, Ghosh, S. K. & Mendiratta, N.	Geospatial based automated watershed modeling in Garhwal Himalaya	IWA Journal of Hydroinformatics, 12(4), 502-520	International	2011
19.	RaajRamsankaran,, , Maerker, Christian &Malcherek, Andreas	Numerical modelling of hydrodynamics and sediment transport process during storm events in a non perennial river	Journal of Hydrology and Hydromechanics, 58(1), 36- 48	International	2011
20.	Chakraborty, P., Popescu, R., Phillips, R	“Liquefaction Study of Heterogeneous Sand: Centrifuge”	ASTM geotechnical testing journal 34 (3), 227-237	International	2011
21.	Chakraborty,P., and Popescu, R.,	Numerical simulation of centrifuge tests on homogeneous and heterogeneous soil models”	Computers and Geotechnics 41, 95-105	International	2011
22.	Chakraborty,P., and Popescu, R.,	“Spectral Amplification of Seismic Motion Travelling Through Natural Sand Deposits”	The Open Numerical Methods Journal 4, 8-23.	International	2011
23.	Sharma N, Arkatkar S S and Sarkar A. K.	Heterogenous Traffic Flow Characteristics of a two- lane road	Transport 26(2), Taylor & Francis, UK, 185-196	International	2011
24.	Sarkar A. K	Development of a sustainable Rural Roads Maintenance System in India	Transport and Communications Bulletin for Asia and the Pacific, Economic and Social Commission for Asia and the Pacific; United Nations, 34-47.	International	2011
25.	Sarkar A.K and Dash Motilal	Quantification of Accessibility and Prioritization of Villages for Local Level Planning	Transport and Communications Bulletin for Asia and the Pacific, Economic and Social Commission for Asia and the Pacific; United Nations 1-22	International	2011

26.	Dinesh Kumar and S. B. Singh	Effects of cutout shapes on postbuckling response of quasi-isotropic laminate under combined in-plane loads	World Journal of Engineering, Supplement 1, 611-12	International	2011
27.	S. B. Singh and S. Madappa	Performance of NSM-FRP RC Beams in Flexure and Shear Using Locally Developed CFRP Rebars	Int. Jl. of Sustainable Materials and Structural Systems, 1(1), 42-67.	International	2011
28.	S. B. Singh and S. Madappa	Performance of DFRCC-Concrete Frames under Flexural Loading	Construction Materials, Journal of Institution of Civil Engineers, UK, 166(1), 34-44.	International	2011
29.	S. B. Singh, K. Nagarjuna, A. HimaKiran, and B. Jagadeeswara Reddy	Manufacturing and Tensile strength of FRP Bars	Journal of Civil Engineering & Construction Review, 24(10), 76-82	National	2011
30.	Dinesh Kumar and S.B. Singh	Load interaction curves and post-buckling response of composite laminate with cutout under combined in-plane loading	Journal of Composites: Part –B: Engineering, 42(5), 1189-1195,	International	2011
31.	Dinesh Kumar and S. B. Singh	Stability and Failure of Composite Laminates with various shaped cutouts under combined in-plane loads	Composites Engineering: Part B, 43(2), 142-149	International	2011
32.	Dinesh Kumar and S. B. Singh	Effect of Cutout Location on Postbuckling Responses and Failure Characteristics of Composite Laminates	Journal of Aerospace Sciences and Technologies, 63(2), 125-134.	National	2011
33.	V. ThamizhArasan and Shriniwas S. Arkatkar	Micro-simulation Study of Vehicular Interactions in Heterogeneous Traffic Flow on Intercity Roads	Journal of European Transport, 2011, 48(1),60-86	International	2011
34.	Nitish Sharma, Shriniwas S. Arkatkar and	Study of Heterogeneous Traffic Flow Characteristics on Two	Transport, Taylor and Francis, UK, 26(2), 185-196	International	2011

	Ashoke K. Sarkar	Lane Roads			
35.	Balaji P, Shriniwas S Arkatkar and AnupamSinghal	Impacts of Induced Travel on Indian Highway Projects: A Case Study	International Journal of Earth Sciences and Engineering, 4(6), 385-389	International	2011
36.	DeshpandeNilesh, IshanChanda and Shriniwas S Arkatkar	Accident Mapping And Analysis Using Geographical Information Systems	International Journal of Earth Sciences and Engineering, 4(6), 342-345	International	2011
37.	Shriniwas S Arkatkar	Effect of Intercity Road Geometry on Capacity under Heterogeneous Traffic Conditions Using Microscopic Simulation Technique	International Journal of Earth Sciences and Engineering, 4(6), 375-380	International	2011
38.	V. ThamizhArasan and Shriniwas S. Arkatkar	Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic	Highway Research Journal, Indian Roads Congress, New Delhi, 4(1), 51-68	National	2011
39.	Shriniwas S. Arkatkar and V. ThamizhArasan	Micro-simulation Study of Vehicular Interactions on Upgrades of Intercity Roads in Heterogeneous Traffic	Journal of European Transport, 48, 1-29	International	2011
40.	S. N.Patel, C. Bisagni, P.K. Datta	Dynamic buckling analysis of composite stiffened cylindrical shell	Structural Engineering and Mechanics, 37(5),509-527	International	2011
41.	Subodh Kant Dubey, Balaji P. and Shriniwas S. Arkatkar	Time Gap Modeling under Mixed Traffic Conditions: A statistical Analysis	Jl. of Transportation System Engineering and Information Technology, Elsevier, 72-84	International	2012
42.	Anupam Singhal, Satya Prakash and V. K. Tewari	A study on sludge utilization of treated spent liquor sludge with fly ash by making cement concrete hollow cavity bricks	Jl. of Environmental Science & Engineering, NEERI, 48(2), 109-112, Nagpur	International	2012
43.	D. Kumar and S. B. Singh	Effects of Flexural Boundary Conditions on Failure and Stability of Composite Laminate with Cutouts combined in plane loads	Composites: Part B, 45, 657-665.	International	2012

44.	S. B. Singh and Himanshu Chawla	Dynamic Characteristics of GFRP Laminates with Cutouts	Int. Jl. of Applied Engineering Research, ISSN 0973-4562, 7(11), 1319-1323	International	2012
45.	S. B. Singh, Sivasubramanian, M.V.R., Likhith Reddy, A., Chandra Prakash, K., Nagarjuna, K. and Hima Kiran	Performance of NSM-FRP RC beams in flexure and shear using locally developed CFRP rebars	Int. Journal Sustainable Materials and Structural Systems, 1(1), 42-67.	International	2012
46.	Ajit Pratap Singh and S. K. Dubey	Optimal selection of a landfill disposal site using a modified fuzzy utility approach	Springer Journal of Fuzzy Information and Engineering, 4(3), 313-338	International	2012
47.	J. S. Challa, A. Paul, Y. Dada, V. Nerella, P. R. Srivastava and Ajit Pratap Singh	Integrated Software Quality Evaluation: A Fuzzy Multi-Criteria Approach	Jl. of Information Processing Systems, 7(3), 473-518	International	2012
48.	A.K. Sarkar	Role of Social Sciences in Engineering Education	Pertanika Journal of Social Sciences and Humanities.	International	2012
49.	D. Bhunia, V. Prakash and A.D. Pandey	A study on the behavior of Coupled Shear Walls	Structural Engineering and Mechanics, 42(4), 645-675	International	2012
50.	S. B. Singh and JayantAhlawat, Aparajita Singh	Forecasting Project Duration: A Fuzzy Approach	Journal of CE & CR, 25(7), July	National	2012
51.	S. B. Singh	Shear Response and Design of RC Beams Strengthened using CFRP Laminates	Int. Jl. of Advanced Structural Engineering, 5(1), 1-16	International	2013
52.	S. B. Singh	Design, Construction, and Failure Aspects of World Trade Center Towers	Civil Engineering and Construction Review 26(8), 38-44	International	2013
53.	D. Kumar and S. B. Singh	Effects of Boundary Conditions on Post buckling Strengths of Composite Laminate with Various Shaped Cutouts under In-plane Shear	Open Journal of Composite Materials 3(2), 38-50	International	2013

54.	S. B. Singh, Asani Likhith Reddy, and Chandra Prakash Khatri	Experimental and Parametric Investigation of Response of NSM CFRP Strengthened RC Beams	ASCE's Journal of Composites for Construction, 18(1)	International	2013
55.	Meghna Charde & Rajiv Gupta	Design development and thermal performance evaluation of static sunshade and brick cavity wall: An experimental study	Elsevier, 60, 210-216	International	2013
56.	Manish A. Kewalramani & Rajiv Gupta	Compressive Strength Characteristics of Normal Strength Concrete Cured Using Colored Polythene Sheets	Advanced Materials Research, 685, Trans Tech Publications, Switzerland/scientific.net, 223-227	International	2013
57.	Meghna Charde & Rajiv Gupta	Annual thermal performance of hollow roof in combination with cavity wall and static sunshade: An experimental study of energy efficient rooms	ASCE's Journal of Energy Engineering, 139(4), 281-289	International	2013
58.	Meghna Charde & Rajiv Gupta	Effect of energy efficient building elements on summer cooling of buildings	Energy and Buildings, Elsevier, Elsevier, 67, 616-623	International	2013
59.	Muthukumar G and Manoj Kumar	Nonlinear finite element dynamic analysis of squat shear wall with openings	Int. J. of Advanced Structural Engineering, Springer Open Journal, 5(27)	International	2013
60.	Kumar K., Verma A. and Aggarwal A.	Moisture Content Effect on Sliding Shear Test Parameters in Woven Geotextile Reinforced Pilani Soil	Int. J. of Engineering Science Invention, 2(8), 10-15	International	2013
61.	Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta	Investigation on the behavior of conventional reinforced coupling beams	Composites: Mechanics, Computations, Applications, 4(4), 291-301	International	2013

62.	D. Bhunia, V. Prakash and A. D. Pandey	A Conceptual Design Approach of Coupled Shear Walls	ISRN Civil Engineering, 28 pages	International	2013
63.	Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta	Investigation on the behavior of conventional reinforced coupling beams	Composites: Mechanics, Computations, Applications, 4(4), 291-301	International	2013
64.	D. Bhunia, V. Prakash and A. D. Pandey	A Conceptual Design Approach of Coupled Shear Walls	ISRN Civil Engineering, Civil Engineering, 28 pages	International	2013
65.	Akash K. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta	Investigation of the Effect of Various parameters on the behavior of coupling beams	Current Advances in Civil Engineering Applications, 4(4), 291-301	International	2013
66.	Sharma B. K., A. P. Singh, K. Yadav and R. C. Chaudhary	Effects of Chemical Reaction on Magneto-Micropolar Fluid Flow from a Radiative Surface with Variable Permeability	Journal of Applied Mechanics and Engineering, 18(3), Pages 833–851	International	2013
67.	A. P. Singh, et al.	Ranking of software design alternatives: a fuzzy utility approach	Int. J. of Information Systems and Change Management, 6(3), 239-265.	International	2013
68.	Saha, P., Pal. M. & Sarkar, A. K.	Study on percent time-spent following: a performance measure for two-lane highways	Advances in Civil Engineering and Building Materials, Taylor & Francis Group, 899-902.	International	2013
69.	Shalini K. Umasankar, Shrinivas S Arkatkar, Ajit Pratap Singh and Ashoke Kumar Sarkar	Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India	Jl. of Eastern Asia Soc. of Transportation Studies, 9, 1347-1366.	International	2013
70.	Subodh Kant Dubey, Deval Mishra, Shrinivas S Arkatkar, Ajit Pratap Singh and Ashoke Kumar	Route Choice Modelling Using Fuzzy logic and Adaptive Neuro-fuzzy	Modern Traffic and Transportation Engineering Research, , American V-King Scientific Publishing Limited, 2(4), 11-19	International	2013

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71.	Kartikeya Jha, Nishita Sinha, Shriniwas S. Arkatkar and Ashoke Sarkar	Modeling Growth Trend And Forecasting Techniques For Vehicular Population In India	Int. Jl. for Traffic and Transport Engineering, Elsevier, 3(2), 139-158.	International	2013
72.	Singh A. N., Anupam Singhal, Rajiv Gupta	A small discussion on microwave application for groundwater exploration: a review	Int. jl. of Geomatics and Geosciences, 3(3)	International	2013
73.	Anuradha Devi, Anupam Singhal, Rajiv Gupta	A Review on spent pickling liquor	Int. Jl. of Environmental Sciences, 4(3), 284-295	International	2013
74.	Manoj Kumar and Muthukumar, G.	Failure Criteria of Concrete- A Review', Computers and Concrete.	An International Journal, Techno Press lume 14, Number 5, November 2014, pages 503-525,	International	2014
75.	Sharma, B. K., & Singh, A. P.	Comments on "Combined heat and mass transfer by mixed convection magnetohydrodynamic (MHD) flow along a porous plate with chemical reaction in presence of heat source"	Appl. Math. Mech. -Engl. Ed. 31(10), pp. 1217-1230]. International Journal of Physical Sciences, 9(18), 413-414	International	2014
76.	S. B. Singh and Himanshu Chawla	Structural Response of Thin-Walled FRP Laminated Monosymmetrical I- Beams	Advances in Structural Engg., Dec. 2014, 2011- 2024	International	2014
77.	Manoj Kumar and Muthukumar, G.	Analytical Models of Damping	Indian Concrete Journal, 88(9), 64-72	National	2014
78.	Manoj Kumar and Muthukumar,G	Influence of Opening Location on the Structural Response of Shear Wall	Journal of Non-Linear Dynamics, Hindawi Publication, 2014	International	2014
79.	Singh A. N., Anupam Singhal, Rajiv Gupta	Land Use/ Land Cover information at various scales of Remote sensing data of Jhunjhunu District, Rajasthan	Journal of Remote sensing & GIS, 5(1), 43-54	National	2014

80.	Jay Panchal and Dipendu Bhunia	Solution Of Shear Wall Location In Multistorey Irregular Building	Advancements in Structural Engineering, Materials, Design and Testing, 5	National	2014
81.	Anuradha Devi, Anupam Singhal, Rajiv Gupta	Economic Treatment Method of Waste Pickling Liquor for Micro, Small and Medium Scale Enterprises	Journal of Water Pollution & Purification Research, 1 (1), 1-8	International	2014
82.	Sourabh Bhati, Ayushman Kheterpal, Rajiv Gupta,	Comparative thermal performance of static sunshade and brick cavity wall for energy efficient building envelope in composite climate	Thermal Science International Scientific Journal Year, 18(3)	International	2014
83.	Singh A N, Anupam Singhal, Rajiv Gupta	Plant indication of salinity in Shekhawati region of Rajasthan, India	Frontier in Geosciences, 2(2), 18-22	International	2014
84.	Anuradha Devi, Anupam Singhal, Rajiv Gupta, Prasad Panzade	A Study on treatment methods of spent pickling liquor generated by pickling process of mild steel	Cleaner Technology and Environmental Policy, Springer, 16(8), 1515-1527	International	2014
85.	Dipendu Bhunia, S. B. Singh, Puneet Sharma	A Study on Properties of Concrete due to Effect of Carbonation.	Int. Jl. of Civil Engineering & Building Materials,	International	2014
86.	S. B. Singh, Mahalakshmi, N. and Nikesh Thammishetti	Mechanical properties of Recyled Coarse Aggregate (RCA) Concrete.	Int. Jl. of Applied Engineering Research, 9(3), 363-372	International	2014
87.	Akash K. Walunj, Dipendu Bhunia, Samarth Gupta	Investigation of the Effect of Various parameters on the behavior of coupling beams.	Current Advances in Civil Engineering, 2(1), 1-5	International	2014
88.	Shuvendu N. Patel	Nonlinear bending analysis of laminated composite stiffened plates.	Steel and Composite Structure, 17(6), 867-890	International	2014
89.	Bahurudeen, A., A. V. Marckson, A. Kishore, and M.	Development of sugarcane bagasse ash based Portland pozzolana	Construction and Building Materials., 68, 465-475	International	2014

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90.	Sahu, P., Sharma, S., and Patil, G	Classification of Indian Seaports using Hierarchical Grouping Method	Journal of Maritime Research, 11(3), 51-57	International	2014
91.	Roh, H-J., Sahu, P., Khan, M. A., and Sharma, S	Relative Efficiency Appraisal of Discrete Choice Modeling Algorithms using Small-Scale Maximum Likelihood Estimator through Empirically Tailored Computing Environment	Journal of Modern Transportation, 23 (1), 67-79	International	2014
92.	Sahu, P., Sharma, S., and Roh, H-J.	Estimation of Aggregate Zonal Trips using Univariate and Multivariate Linear Regression Model.	NICMAR Journal of Construction Management, 29 (4), 33-39	National	2014
93.	S. B. Singh, Pankaj Munjal, and N. Thammishetti	Strengthening of Masonry Beam with ECC as Bed Joint.	Jl. of Engineering Science and Technology, School of Engineering, Taylor's University, 29-39	International	2015
94.	S. B. Singh and Aditi Chauhan	Study of the Bond Behavior of Carbon Fiber Reinforced Polymer (CFRP) Bars.	The Indian Concrete Journal, 89(4), 32-40	National	2015
95.	Chakrabarti S., Singh, A. P., and Kumar, S.	Assessment of Air Quality in Haora River Basin	Pollution Research, 34 (3), 215-222	International	2015
96.	Singh, A. P., Srinivas, R., Kumar, S. and Chakrabarti S	Water quality assessment of a river basin under Fuzzy Multi-Criteria Framework	Int. J. Water, Volume 9(3), 226-247	International	2015
97.	Shalini K., A. K Sarkar, A. P. Singh	Quantification of Accessibility to Health Facilities in Rural Areas	J. Case Studies on Transport Policy. Elsevier. 3(3), 311-320	International	2015
98.	Rajiv Gupta, Harish Puppala and Nakka	Application of Recycled Coarse Aggregates and E-	IOSR Journal of Mechanical and Civil Engineering 12(2),	International	2015

	Rajesh	Waste for Pavements with Low Traffic	Ver. II 64-70		
99.	S. B. Singh, Pankaj Munjal, and N. Thammishetti	Role of Water-Cement Ratio on Strength Development of Cement Mortar.	Journal of Building Engineering (Elsevier), DOI.10.1016/J.Job.2015.09.03	International	2015
100.	S. B. Singh and Thamiseti, Nikesh	Review of Design Provisions for Masonry Structures	International Journal of Earth Sciences and Engineering, Feb	International	2015
101.	Bahurudeen, A. and Manu Santhanam	Influence of different processing methods on the pozzolanic performance of sugarcane bagasse ash.	Cement and Concrete composites. 56, 32–45. (Impact Factor: 2.76)	International	2015
102.	Bahurudeen, A., K. Deepak, D. V. Gokul, and Manu Santhanam	Performance evaluation of sugarcane bagasse ash based Portland pozzolana cement in concrete.	Cement and Concrete composites. 59, 77–78. (Impact Factor: 2.76)	International	2015
103.	Bahurudeen, A., Kaiser Wani, Basit M and Manu Santhanam	Pozzolnic Performance of Sugarcane Bagasse Ash	ASCE Journal of Materials in Civil Engineering	International	2015
104.	Bahurudeen, A., K.S. Vaisakh and Manu Santhanam	Sugarcane bagasse ash as supplementary cementitious material: Availability and potential for use in concrete.	The Indian Concrete Journal. 89, 41-50	National	2015
105.	Siva Teja, J. Rajeswari, K. Deepak and A. Bahurudeen	Development of an efficient procedure for sustainable low carbon cements manufacturing.	Applied Mechanics and Materials.787, pp 142-146	International	2015
106.	Maji, A., Maurya, A., Nama, S. and Sahu, P	Analysis and Modeling of Highway Truck Traffic Volume Variations during Severe Winter Weather Conditions in Canada	Journal of Modern Transportation, 23 (3), 228-239	International	2015
107.	Maji, A., Maurya, A., Nama, S. and Sahu, P	Performance Based Intersection Layout Under a Flyover for Heterogeneous Traffic	Journal of Modern Transportation, 23 (2), 119-129	International	2015

108.	R. Srinivas, Prashant Bhakar, Ajit Pratap Singh	Groundwater Quality Assessment in Some Selected Area of Rajasthan, India Using Fuzzy Multi-criteria Decision Making Tool	ICWRCOE'15, Aquatic Procedia Elsevier, Volume 4: 1023–1030.	International	2015
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Papers Published in Conference Proceedings:

SN	Faculty	Details of Paper presented	Details of Conference attended in last 5 years (Name, Place, Organizer, dates)	National/ International	Year
1.	Keerthi, R. N., Sahu, P	Bionic Tower – An Evolutionary Concept to Design Vertical City	National Conference on Infrastructure, Sustainable Transportation and Urban Planning, Indian Institute of Science, Bangalore, India, October 18 – 20	National	2010
2.	N. P. Deshpande & R. Gupta	Crowd management using fuzzy logic and G.I.S	Seventh International Conference on Computer Simulation in Risk Analysis and Hazard Mitigation 13-15 September, 2010, 325-334	International	2010
3.	D. Kumar and S. B. Singh	“Load interaction curves and postbuckling response of composite laminate with cutout under combined in-plane loading	National Institute of Technology, Hamirpur, India, December 18-21, 191-199.	National	2010
4.	S. B. Singh, A. Nagarjuna, H. Kiran, and B. J. Reddy	Manufacturing and Investigating the Behaviour and Tensile Strength of FRP Bars	National Civil Engineering Students Symposium, IIT Bombay, India, July 5-9.	National	2010
5.	S. B. Singh	Presented UKIERI Progress Report	Presented UKIERI Progress Report at NIT Jalandhar, Feb. 16	National	2010

6.	S. B. Singh	Advance Composites for Sustainable Concrete Infrastructures	UKIERI Research Seminar held at GNDEC, Ludhiana on Feb. 17	National	2010
7.	S. B. Singh and Madappa V.R. Sivasubramanian	Flexural Response of Steel Reinforced Ductile Fiber Reinforced Cementitious Composite Beam	The Third International FIB Congress , Washington, DC, USA, May 29-June 2.	National	2010
8.	Bahurudeen, A. R. Vidjeapriya, and K.P. Jaya	Performance of Precast Beam-Column Connections under Seismic Type Loading	Conference on Improvement techniques in civil engineering, India, pp. 63-66	National	2010
9.	Kamalesh Kumar	“Safe Vertical Cut Height and Ultrasonic Pulse Velocity Inter-relation of Pilani Soil	Northeast Symposium on Science & Technology, organized by The ICFAI University Tripura at Agartala 18-19 February, 8-13	National	2010
10.	Kamalesh Kumar	Net Safe Bearing Capacity and Ultrasonic Pulse Velocity Inter-relation of Pilani Soil	National Seminar on Non-Destructive Evaluation Jointly organized by Kolkata & Jamshedpur Chapter of Indian Society for Non-Destructive Testing at Science City Kolkata, 9-11 December	National	2010
11.	Mittal, R. K.	Use of Waste Tire-Chip for Improvement of Bearing Capacity as a Replacement of Sand	Sixth International Congress on Environmental Geotechnics November 8-12, New Delhi, India, 974-979.	International	2010
12.	S. B. Singh	Innovative Ductile Fiber Reinforced Cementitious Composites for Structural Applications	All India Seminar on Rehabilitation and Retrofitting for Sustainable Structures, Jodhpur, Aug 19-20.	National	2011
13.	D. Kumar and S. B. Singh	Postbuckling Strengths of Composite Laminate under Combined In-plane Loads for various Boundary Conditions	56th CONGRESS OF ISTAM (An International Meet), SVNIT Surat, Dec. 19-21.	National	2011
14.	. D. Kumar and S. B. Singh	Effects of cutout shapes on postbuckling response of quasi-isotropic laminate under	19 th Annual International Conference on Composites or Nano Engineering (ICCE19), Shanghai, China July 24-30	International	2011

		combined in-plane loads			
15.	S. B. Singh and Madappa V. R. Subramanian	“Response of Steel Reinforced Engineered Cementitious Composite Beams	UKIERI Concrete Congress, IIT Delhi, March 8-10	National	2011
16.	S. B. Singh and D. Kumar	Effect of cutout aspect ratio on buckling and postbuckling strengths of composite panel under in-plane shear	16 th International Conference on Composite Structures (ICCS16), University of Porto, Portugal, June 28-30	International	2011
17.	Megna Charde, Rajiv Gupta	Thermal Performance of a hollow Roof: An experimental Study	World Renewable Energy Congress Indonesia, International Conference and Exhibition on Renewable energy and Energy Efficiency , Bali Indonesia, Oct. 17-19	International	2011
18.	Kathuria, Kanika, Rajiv Gupta	Climate change and human health: Denial to positive action	1st world congress for man and nature “Global climate change & biodiversity conservation, 11-13 Nov., Gurukula Kangri Vishwavidyalaya, Haridwar	International	2011
19.	A. K. Sarkar	Developing a Sustainable Transportation Plan for Agartala	First Tripura Science Congress, Agartala during 8-9 September.	National	2011
20.	A. K. Sarkar	Reorienting Engineering Education in India	National Seminar on Emerging Trends in Science and Technology, ICFAI University, Tripura, 25-26 March.	National	2011
21.	A. K. Sarkar	Keynote address: Role of Social Sciences in Engineering Education	Int. Conf. on Consultation and Experience Sharing on Role of Humanities and Social Sciences in Holistic Development of Future Technocrats- Looking Ahead, Jaippee University, Wagnaghat, (HP); 23-14 September	International	2011
22.	A. K. Sarkar	Developing a Sustainable Transportation Plan for Agartala	First Tripura Science Congress, Agartala during 8-9 September	National	2011

23.	V. Bansal, A. Choudhary, D. Bhunia, A. Parauha and Nikhil Shrivastava	A Study on Shotcrete Technology”, Proceedings of Recent Advances in Civil Engineering	Proceedings of Recent Advances in Civil Engineering, 14 th Oct., IT BHU	National	2011
24.	Agrawal S., Anshuman, D. Bhunia, R. K. Pandey	“Investigation about the location of shear wall in RCC Medium-Rise Building	Proceedings of Recent Advances in Civil Engineering,,14 th Oct. IT BHU, October	National	2011
25.	S, Sharma A.K., Manmadha Rao, Meenal Gosavi, Mittal, R. K	Improvement of High Compressible Clay with Admixtures	National conference on Recent Advances in Ground Improvement Techniques organized by CBRI Roorkee and Indian geotechnical Society, Feb 24-25, 87-96.	National	2011
26.	Sahu, P., and Patil, G. R	Analysis and Forecasting of Freight Demand at Mumbai Port	1stConference of Transportation Research Group of India, Bangalore, India, December 7 – 10.	National	2011
27.	S. B. Singh	Retrofitting of RC Structures Using ECC and FRP	Structural Health Monitoring and Rehabilitation, September 19-20, Pilani, Rajasthan	National	2012
28.	S. B. Singh	Assessment of Dynamic Parameter of GFRP Laminates with Imperfections	ICCMS 2012, Hyderabad, India, December 9-12	National	2012
29.	S. B. Singh and Himanshu Chawla	“Dynamic Characteristics of GFRP Laminates with Cutouts	3rd International Conference on Emerging Trends in Engineering and Technology (IETET 2012) to be held at Geeta Institute of Management and Technology, Kurukshetra, India, November 9 -11, 2012	International	2012
30.	S. B. Singh	“Innovative Ductile Fiber Reinforced Cementitious Composites for Structural Applications	National Conference on Recent Advances in Composites (NCRAC 2012), June 15-16, Hyderabad	National	2012
31.	S. B. Singh, V. R. S. Madappa,	Behaviour of Reinforced DFRCC Structural	Proc. of UKIERI CONCRETE CONGRESS: Innovations in	National	2012

	Tryphena Edward, And Priyadarshini Cheyar Nageswaran	Elements under Flexural Loading	Concrete Construction, March 5-8, Jalandhar, Punjab, India		
32.	S. B. Singh, Madhurima Bhattacharya, Nikhil Shrivastava, Anubhav Suri, and Ayush Gupta	Flexural Strengthening of ECC Beams Using Near Surface Mounted (NSM) Hybrid FRP Bars	Innovation in Concrete Construction, March 5-8, Jalandhar, Punjab, India, CD Proceedings	National	2012
33.	S. B. Singh and Madappa V. R. S	Strengthening Applications of Engineered Cementitious Composites for RC Structural Elements	International Conference on Fiber Reinforced Concrete-Global Development, February 13-14, Nagpur	National	2012
34.	Rajiv Gupta, Rajitha, K., Basu, S., Mittal, S.K.	Application of GIS in Crime Analysis: A Gateway to Safe City	14th Annual International Conference and Exhibition on Geospatial Information Technology and Applications, India Geospatial Forum, 7-9 Feb, Gurgaon, India	National	2012
35.	Meghana Charde, Rajiv Gupta	Design development and thermal performance evaluation of a brick cavity wall	4th International Conference on Sustainable Energy and Environment: A Paradigm Shift to Low Carbon Society, Bangkok, Thailand, February 27 -29, 428-434	International	2012
36.	Umashankar S, Shalini Kanuganti, Arkatkar, Shrinivas S. and Sarkar, Ashoke Kumar	Assessment of Level-of-Service of City Buses in Jaipur Using Fuzzy Set Theory	Proceedings of the TSE Silver Jubilee International Conference -10 th TPMDC, 12-14 December, IIT Bombay	International	2012
37.	Singh Praveen, Gowda K.S., Arkatkar S.S. and Sarkar A.K.	Pedestrian gap acceptance behaviour Analysis at midblock sections	Proceedings of the National Conference and workshop on "Recent Advances in Traffic Engineering" at SVNIT Surat, India June 7-9	National	2012
38.	Behara, Krishna Nikhil Sumanth, Arkatkar,	A Composite Index to Measure the Perceived Inadequacy of Public	5 th Research Symposium on Urban Mobility India, Institute of Urban Transport,	National	2012

	Shriniwas S., and Sarkar, Ashoke Kumar	Transportation	Dec. 5-8		
39.	Saha, P., Sarkar, A. K., Pal, M	Study of traffic characteristic on a National Highway passing through peri-urban area in Agartala, Tripura	Proc. National Conf. on Urban Mobility-Challenges, Solutions and Prospects, IIT Madras, July, 13-14, 84-86.	National	2012
40.	Singh Praveen, Gowda K. S., Arkatkar S.S. and Sarkar A.K	Pedestrian gap acceptance behavior analysis At midblock sections	National Conference and workshop on "Recent Advances in Traffic Engineering" at SVNIT Surat, India June 7-9	National	2012
41.	P. Saha, A. K. Sarkar, M. Pal	Study of Traffic characteristic on a National Highway passing through Peri-urban Area in Agartala, Tripura	Urban Mobility-Challenges, Solutions and Prospects, July 13-14, Center of Excellence in Urban Transport, IIT Madras	National	2012
42.	A. K. Sarkar	Use of Non-conventional Materials for the Construction of Low-volume Roads	Workshop on Non-Conventional Materials/ Technologies organized by NRRDA at CRRRI 18 February	National	2012
43.	G. Muthukumar and Manoj Kumar	Finite Element Dynamic Analysis of Shear Wall	Int. Conf. on Advances in Mechanical, Manufacturing and Building Science, Jan. 90-12, VIT University, Vellore, Tamil Nadu, India,1044-1050.	International	2012
44.	Singh A.P., S. Chakrabarti, and S. K. Dubey	Managing Water Quality of a River Basin Using Fuzzy Water Quality Index	Proceedings National Seminar on Recent Trends in Geo-Environmental Engineering, during March 17-18, M.B.M Engineering College Jodhpur, 83-88.	National	2012
45.	Singh A.P., S. Chakrabarti, A. K. Sarkar and S. K. Dubey	Fuzzy water quality index and sensitivity analysis: a comprehensive technique for water quality management of a river basin,	5th International Perspective on Water Resources & the Environment Conference (IPWE 2012), during January 5-7	International	2012
46.	G. Raghvendra Teja G ,Vijay Kumar K.	Water distribution network and modes of failure in a city/town	Technological Advancement in Chemical and	National	2012

	and Anupam Singhal		Environmental Engineering, BITS Pilani, March 23-24		
47.	Tharun kumar Reddy, Tejit Babu K. and Anupam Singhal	Water distribution and irrigation networks – a case study	Technological Advancement in Chemical and Environmental Engineering, BITS Pilani, March 23-24	National	2012
48.	Arun kumar G N, G. Sujitha Kumari and D. Bhunia	A Study on Sustainable Straw Bale House Construction during Earthquakes in India	Proceedings of Structural Engineering Convention, NIT Surat, December, 19-21	National	2012
49.	D. Bhunia, K. Sujitha and G.N. Arun	A Study on the Behavior of Coupling Beams”, International Conference on Earthquake Resistant Construction Practice (ICEQRCP-2012)	International Conference on Earthquake Resistant Construction Practice M.G.R. University, Chennai, 27th-28th July	International	2012
50.	S.N.Patel	Nonlinear response of laminated composite stiffened plate	International Conference on Structural Engineering and Mechanics, 20-22, December NIT Rourkela, Rourkela.	International	2013
51.	S.N.Patel	Nonlinear deflection of laminated composite eccentrically stiffened plates"	National Conference on Recent Trends and Innovations in Civil Engineering, 15-16, November- BRCM College of Engineering and Technology. Bahal, Bhiwani, Haryana	National	2013
52.	S.N.Patel	Nonlinear bending analysis of laminated composite stiffened plates	International Conference on Steel & Composite Structures, 8-12, September- Korea Adv. Inst. of Sci. & Tech. (KAIST) in cooperation with Techno-Press Journals, ICC, Jeju, South Korea.	International	2013
53.	Mittal R.K., Mahalakshmi N., and Singh S	Evaluation of liquefaction screening criterion based on standard penetration test values	Structural Congress, May 2-4, 2013, Pittsburgh, Pennsylvania, 2983 – 2988, ASCE	International	2013
54.	Bartik Pandal, Anupam Singhal and Anuradha Devi	An Overview of Utilization of Spent Pickling Sludge with Fly Ash in Cement	The 5th Asia & Pacific Young Researchers & Graduates Symposium on Current Challenges in Structural	International	2013

		Concrete Production	Engineering, YRGS 2013, MNIT Jaipur, 15-16th Oct, 328-333		
55.	Bartik Pandal, Satender Dehiya and Anupam Singhal	Concrete as a Carbon Sink: A Review	Proceedings of National Conference on Recent Trends and Innovation Civil Engineering held at BRCM CET, Bahal, 15-16th Nov, pp 247-249.	National	2013
56.	Sourabh Bhati and Anupam Singhal	Regional Scale Irrigation water management using GIS	Proceedings of National Conference on Recent Trends and Innovation Civil Engineering, BRCM CET, Bahal, 15-16th Nov, 86-90	National	2013
57.	Shalini, K., U. Subramanian, S. S. Arkatkar, A. P. Singh and A. K. Sarkar	Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India,	Proceedings of 10th EASTS Conference, Taipei during 9-12 September	International	2013
58.	Meghana Charde, Rajiv Gupta	Analysis of brick cavity wall for energy conservation in buildings	International Congress on Materials and Renewable Energy at the InterContinental Hotel, Athens – GREECE during 1-3 July	International	2013
59.	B. P. Agarwal, Rajiv Gupta	Innovations for Systemic Sustainability	Innovations for Systemic Sustainability, EuroCharity Yearbook, USA, May	International	2013
60.	Meghana Charde, Sourabh Bhati, Ayushman Kheterpal, <u>Rajiv Gupta</u>	Thermal performance of static sunshade and brick cavity wall in composite climate	8 th Conference on sustainable Development of Energy, Water and Environment Systems, University of Zagreb and Cologne University of Applied, Sciences and Aalborg University; 22nd - 27th Sept, Dubrovnik Conference, FSB Ivana Lucica 5, HR -10000, Zagreb, Croatia	International	2013
61.	Rajiv gupta, Samaksh Jhanjhari, Ankit	Designing rainwater harvesting system for villages	Water – Present and Future, IWWA, Jodhpur Chapter, 24-25 Aug.	National	2013
62.	Manish A. Kewalramani, Rajiv	Influence of Environmental	International Conference on Advanced Materials Research	International	2013

	Gupta	Conditions and Curing Methods on Normal Strength Concrete – An Experimental Study	(ICAMR 2013) Dubai, UAE on January 19-20.		
63.	J.Rajendra Prasad, Shalini Kanuganti, Pooja N. Bhanegaonkar, Ashoke Kumar Sarkar and Shriniwas Arkatkar	Development of Relationship between Roughness (IRI) and Visible Surface Distresses: A Study on PMGSY Roads	Proceeding of 2nd Conference of Transportation Research Group of India (CTRG), Agra, 12-15 December,.	National	2013
64.	G. Muthukumar and Manoj Kumar	Effect of opening size on the structural response of rectangular slender shear wall without boundary Elements	National Conference on Recent Advances in Civil Engineering (RACE) at NIT Patna, June 13-14.	National	2013
65.	G. Muthukumar and Manoj Kumar	Influence of Openings on the Dynamic Structural Response of Rectangular Slender Shear Wall for different Damping Ratios.	International Conference on Structural Engineering & Mechanics (ICSEM)- 2013, NIT Rourkela	International	2013
66.	S. B. Singh	Delivered Keynote Lecture on “Ductile FRP System and its Structural Applications	5 th Asia-Pacific Young Researchers and Graduates Symposium YRGS 2013) , MNIT Jaipur on 15 October	National	2013
67.	S. B. Singh	Ductile FRP System and its Structural Applications	Proceedings of the 5 th Asia-Pacific Young Researchers and Graduates Symposium YRGS , MNIT Jaipur, October 15-16, pp.133-141	National	2013
68.	S. B. Singh	Sustainable Concrete Infrastructures	Sustainable Concrete Infrastructures,” at UKIERI Showcase Event, British Council Division, New Delhi, October 14	National	2013
69.	S. B. Singh	Innovative Ductile Cementitious Composites for Structural Applications	UltraTech Cement Technical Lecture in partnership with the Institution of Engineers, Baroda, Institution of Engineers Building, September 28	National	2013

70.	S. B. Singh	Delivered Invited Lectures on Philosophy and Practice of Maintaining Industrial Structures	Bokaro Steel Plant organized by HRD, Bokaro Steel Plant, Bokaro during July 16-17	National	2013
71.	S. B. Singh	“Delivered a Keynote Inaugural Lecture at Short-Term Training Programme on Computational and Experimental Methods for Advance Research in Composites	Computational and Experimental Methods for Advance Research in Composites, MNIT Jaipur, June 12-16	National	2013
72.	Akash k. Walunj, Dipendu Bhunia, Samarth Gupta and Prabhat Gupta	Investigation on the behavior of conventional reinforced coupling beams	International Conference on Construction and Civil Engineering-2013 (accepted for oral presentation), December 24-25, Bangkok, Thailand.	International	2013
73.	Datla, S., Sahu, P., Roh, H, J., Sharma, S	A Comprehensive Analysis of the Association of Highway Traffic with Winter Weather Conditions	.2 nd Conference of Transportation Research Group of India, Agra, India, December 12 – 15	National	2013
74.	Sahu, p., and patil, g. R	Analysis and Modeling of Freight Demand at Mumbai Port using Regression and Time Series Techniques	92 nd Annual Meeting, Transportation Research Board, Washington D.C., USA, January 13 – 17	International	2013
75.	Bahurudeen & M. Santhanam	Characterisation of sugarcane bagasse ash as supplementary cementitious material in concrete	Proceedings of UKIERI concrete congress- Innovations in concrete construction, NIT Jalandhar, India, 5-8 March, 181-185.	National	2013
76.	G. Muthukumar and Manoj Kumar	Influence of Openings on the Structural Response of Shear Wall	Structural Engineering Convention, IIT Delhi, 22 nd – 24 th Decembe	National	2014
77.	G. Muthukumar and Manoj Kumar	Influence Of Opening Size On The Displacement Response of Squat Shear Wall	5 th International Congress On Computational Mechanics and Simulation, SERC, Chennai, 10-13 December	International	2014

78.	S. B. Singh, Himanshu Chawla, Manish Pandey, and Rohan Nerlekar	An Innovative Design of Functionally Graded FRP Material	International Conference on Composites, China, 24 Sept.	International	2014
79.	S. B. Singh and Himanshu Chawla	Structural Response of Thin-walled FRP Laminated Mono-symmetrical I-Beams	Proc. of Structural Engineering Congress (SEC2014), December, 22-24, New Delhi, India.	National	2014
80.	S. B. Singh, Himanshu Chawla, And Pankaj Munjal	Effect of Shear Deformation on Flexural Response of Laminated Composite I-Beam	First International Conference on Mechanics of Composites, Stony Brook University in Stony Brook, NY, USA, June 8-12	International	2014
81.	S. B. Singh and Himanshu Chawla	Stability of Thin-walled FRP Laminated Beams under Flexural Loading	Proceedings of NCSID, NITTTR, Chandigarh, March 13-14.	National	2014
82.	S. B. Singh, Mahalakshmi, N. and Nikesh Thammishetti	Mechanical properties of Recycled Coarse Aggregate (RCA) Concrete	Sustainable Innovative Techniques In Civil and Environmental Engineering, Jawaharlal Nehru University, New Delhi, January 4-5	National	2014
83.	Ashoke kumar Sarkar, S. Kanuganti & A. P. Singh	Quantifying Accessibility to Health Care using Two-step Floating Catchment Area Method (2SFCA): A case study in Rajasthan.	Proceedings of the International Conference - 11th TPMDC, 10-12 December, IIT Bombay.	International	2014
84.	Manpreet Singh, Rajiv Gupta	Accident Black-Spot Validation using GIS	Esri India User Conference, Kempinski Ambience Hotel, Delhi, India, December 9-11, 2014	National	2014
85.	Kanika, and Rajiv Rupta	Effect of varying the size of initial parent pool in genetic algorithm	International Conference on Contemporary Computing and Informatics, 27-29 Nov. Sri Jayachamarajendra College of Engineering Mysore, Karnataka, India, 785-788	International	2014
86.	Rajiv Gupta, Saurabh Singhal,	Prediction of Global Solar Radiation in India using	9 th Conference on sustainable Development of Energy,	International	2014

	Snupam Singhal	Artificial Neural Network	Water and Environment Systems, University of Zagreb and Cologne University of Applied, Sciences and Aalborg University; 20th - 27th Sept		
87.	<u>Rajiv Gupta</u> , Shrikant Maniyar	Mapping Solar Potential of West India: a GIS based analysis	Geospatial World Forum, Centre International Conferences Geneve Switzerland, 05-09 May	International	2014
88.	Anuradha Devi, Anupam Singhal, Rajiv Gupta, S K Verma, Prasad Panzade, Martina Fernandes	Utilization of copper tailing and spent pickling liquor for improving the fertility of soil	4th Annual International Conference on Advances in Biotechnology held at 10-11 March (Biotech 2014), BITS Pilani Dubai Campus.	International	2014
89.	Ayush Agrawal, <u>Rajiv Gupta</u> , Sumit Kumar, Saurabh Bulchandani, Sourav Bhati, Aditya Kaushik	Design and Implementation of an Economic and Sustainable Rainwater Harnessing System for Rural Rajasthan	All India Seminar on Innovations in Green Building Technology, Jan 17 & 18, organized by The Institutions of Engineers (India) Nagpur Local Centre and Maharashtra State Centre, 18-22	National	2014
90.	<u>Rajiv gupta</u> , Rajesh Singh	Effect of Image Enhancement on Supervised Classification of Cartosat-1 Image Using Different Parametric Rules	User Interaction Meet-2014, National Remote Sensing Centre, ISRO, Balanagar, Hyderabad, January 20-21.	National	2014
91.	Singh, A.P. and and P. Shrivastava	A Comparative Study on Water Quality Assessment of a River Using AHP And PROMETHEE Techniques	Proceedings of 19th HYDRO 2014 International Conference, 18-20 December, MANIT Bhopal.	International	2014
92.	Shalini K., A. K. Sarkar and A. P. Singh	Quantifying Accessibility to Health Care using Two-step Floating Catchment Area Method	Proceedings of 11th International Conference Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), 10-12 December, IIT Bombay	International	2014

93.	Narendran, R., Mittal R.K. and Viswanath, V	Analysis of well head jacket platform using sacs	Fifth Indian National Conference on Harbour and Ocean Engineering, Goa, 5-7 Feb.	National	2014
94.	S. N.Patel	Buckling of laminated composite stiffened plates with partial in- plane edge loading”	6 th International Conference on Theoretical, Applied, Computational and Experimental Mechanics 29-31, Dec. IIT Kharagpur.	National	2014
95.	Y.D.Joshi and S.N.Patel	"Economical Design of RCC Structural Members Using Standard Software Package and Excel Spread Sheets	Structural Engineering Convention (SEC-2014), 22- 24, December-2014, Dept of Civil Engineering, IIT Delhi.	National	2014
96.	S. N. Patel	"Nonlinear Finite Element Bending Analysis of Composite Shell Panels	Structural Engineering Convention (SEC-2014), 22- 24, December-2014, Dept of Civil Engineering, IIT Delhi	National	2014
97.	Y.D. Joshi and S.N.Patel	"Economical Design of RCC Structural Members of 6-Story Building	Strategic Prospective and Advances in Civil Engineering (SPACE-2014), 14-15, November, Eshan College of Engineering, Farah (Mathura)	National	2014
98.	S.N.Patel	Nonlinear Finite Element Bending Analysis of Composite Cylindrical Panels	3rd World Conference on Applied Sciences, Engineering and Technology (WCSET-2014), 27-29,Sept., Thamel, Kathmandu, NEPAL.	International	2014
99.	A.V.Simha and S.N.Patel	Bending analysis of laminated composite plates using degenerated shell elements	International Conference on Emerging Trends in Civil Engineering(ICETCE-2014), 6-8, Jan., VNR VJIET, Hyderabad, Andhra Pradesh	International	2014
100.	J. Senjalia and S.N.Patel	Analysis of a multi- storey building considering earthquake load and wind load effect	International Conference on Emerging Trends in Civil Engineering(ICETCE-2014), 6-8, Jan., VNR VJIET, Hyderabad , Andhra Pradesh.	International	2014
101.	Anuradha Devi, Anupam Singhal ,, S.K Verma,	Utilization of copper tailing and spent pickling liquor for	4th International Conference in Advances in Biotechnology held on 10-	International	2014

	Rajiv Gupta, A N Singh, Prasad Panzade, Martina fernan de	improving the fertility of soil	11 March (Biotech 2014), BITS Pilani Dubai campus , Dubai, 48-50		
102.	Bartik pandel, Anupam Singhal, Anuradha Devi	“Comparison of Wastewater Quality Parameters in Algae, Water Hyacinth and Duckweed Based Treatment Systems	International symposium on Integrated Water Resources Management (IWRM-2014) held on Feb 19-21, CWRDM, Kozhikode, Kerala, India, 543-548.	International	2014
103.	Sanghamitra kundu A. S. Rathore, A. Pushp, V.S. Chundawat	Batch Investigations on Elemental Dissolution from Copper Mine Tailing Pond, Khetri, India: Evaluation of the Environmental Contamination Potential.	Conference proceedings of International Conference on Chemical, Civil and Environmental Engineering (ICCEE’2014); 18–19 November, Singapore: IICBE Int’l Conference, 10–19.	International	2014
104.	Jay Panchal and Dipendu Bhunia	SOLUTION OF SHEAR WALL LOCATION IN MULTISTOREY IRREGULAR BUILDING	Structural Engineering Convention Dec. 22-24, IIT Delhi, India	National	2014
105.	Singhal, S., Madhusudan, A., and Sahu, P	Unconventional Intersection Layout: An Improved Approach for Intersection Design	National Conference on Current Trends in Civil Engineering, Nagpur, India, December 18 – 19.	National	2014
106.	Maji, A., Maurya, A., Nama, S., and Sahu, P	“Alternative Layouts of Intersections Under Flyover	19th International Conference of Hong Kong Society for Transportation Studies, Hong Kong, China, December 13 – 15	International	2014
107.	Sahu, P., and Patil, G. R	Statistical Investigation and Demand Estimation of Commodity Flow at Mumbai Port	International Conference Transportation Planning & Implementation Methodologies for Developing Countries, IIT Bombay, Mumbai, India, Dec. 10 – 12	International	2014
108.	Roh, H, J., sharma, S., and Sahu, P	Application of Combined Chi-square and Binomial Statistical Test on Truck Type Distribution in Canada Provincial Highways	Seoul International Conference on Applied Science and Engineering, Seoul, South Korea, August 29 -31.	International	2014

109.	Sahu, P., and Patil, G. R	Classification of Indian Major Seaports using Hierarchical Grouping Method and Their Demand Estimation Models	93rd Annual Meeting, Transportation Research Board, Washington D.C., USA, 12th – 16th January	International	2014
110.	Bahurudeen & M. Santhanam	Development of sugarcane bagasse ash based blended cement for durable and sustainable concrete	Proceedings of 2nd International conference on durability of concrete. New Delhi, India, December, 252-257.	International	2014
111.	Bahurudeen & M. Santhanam	Performance evaluation of sugarcane bagasse ash-based cement for durable concrete	Proceedings of 4th International conference on the Durability of concrete structures. Purdue university, West Lafayette, United States, 275-281.	International	2014
112.	Bahurudeen & M. Santhanam	Durability performance of concrete with sugarcane bagasse ash blended cements. International workshop on improving performance of concrete structures	International workshop on improving performance of concrete structures.” The 4th International fib Congress, Mumbai, India, Feb. 10-13.	International	2014
113.	Bahurudeen & M. Santhanam	Sugarcane bagasse ash- An alternative supplementary cementitious materia	Proceedings of International Conference on Advances in civil engineering and chemistry of innovative materials, India, March 13-14, 837-842.	International	2014
114.	Ashoke kumar Sarkar, S. Kanuganti and A. P. Singh	Impact of PMGSY roads on Rural Accessibility: A case study in Rajasthan	National Seminar on Geoinformatics Applications in Rural Development, 26-27 March, 2015, NIRDPR, Hyderabad.	National	2015
115.	Tanmay Gupta and Manoj Kumar	A Finite Element Approach to Study the Structural Response of Skew Box Girder Bridges	4 th Int. Conference on Advance Trends in Engg. Tech. and Research, BKIT Kota, 18 th -20 th June	International	2015
116.	Rajiv Gupta, Harish Puppala, Shalini Kanuganti,	Integrating Fuzzy AHP and GIS to Prioritize Sites for the Solar plant	12th International Conference on Fuzzy Systems and Knowledge Discover	International	2015

		Installation,	(FSKD'2015), held by Hunan University on August 15-17, ,Zhangjiajie, China., P1550		
117.	Rajiv Gupta	Application of Genetic Algorithm in Design of Water Tanks	The International Conference On Advances in Civil, Structural and Mechanical Engineering - ACSM 2015, conducted by IRED, USA, Bangkok, Thailand, 21-22 Feb.	International	2015
118.	Jyotirmoy Bhardwaj, Rajiv Gupta, K. K. Gupta,	A Review of Emerging Trends on Water Quality Measurement Sensors	IEEE International Conference on Technologies for Sustainable Development (IC TSD -2015), DBIT, Mumbai, 4-6 Feb.	International	2015
119.	R. Patil, A. Singhal, Rajiv Gupta	Application of Multi-Criteria Analysis in Environment Impact Assessment	International Conference on Water: From Pollution to Purification, (ICW 2015), Centre for Environment Education and Technology (CEET), Kottayam, India, Jan, 23-26	International	2015
120.	Sourabh Bhati, and Rajiv Gupta	Design, development and implementation of first flush system	Third International Conference on Creativity and Innovation at Grassroots [ICCI], IIM, Ahmedabad, Jan 19-22	International	2015
121.	Shaik Hussain, Dipendu Bhunia, and S. B. Singh	An Experimental Investigation of The Effect of Carbonation on Properties of Plain Concrete,	Eighth International Conference on Construction in the 21 st Century (CITC-8). Changing the Field: Recent Developments for the Future of Engineering and Construction May 27-30, Thessaloniki, Greece	International	2015
122.	Kanuganti S., A. K. Sarkar and A. P. Singh	Impact of PMGSY roads on Rural Accessibility: A case study in Rajasthan	National Seminar on 'Geoinformatics Applications in Rural Development', 26-27 March, NIRDPR, Hyderabad	National	2015
123.	Sonal, Manisha, Rajiv Gupta, Anupam Singhal	GIS Application for the Environmental Management in	International Conference on Water: From Pollution to Purification, (ICW 2015),	International	2015

		Critically Polluted areas due to Industrial Clustering	Centre for Environment Education and Technology (CEET), Kottayam, India, Jan, 23-26, 2015.		
124.	Sahu, P., and Patil, G. R	Simultaneous Demand Estimation Models for Major Seaports in India	94th Annual Meeting, Transportation Research Board, Washington D.C., USA, 11th – 15th Jan.	International	2015

List of Book Published or Chapter Edited by Faculty:

Sl. No.	Details of Book Published/Faculty Contribution	Publisher	Date/Year
1.	S. N. Patel, "Dynamic Stability Analysis of Composite Stiffened Shell Panels"	LAP LAMBERT Academic Publishing, Germany	2010
2.	Srivastava, P. R., Ajit Pratap Singh , and K. V. Vageesh, (Authored a Chapter) Assessment of software quality: a fuzzy multi criteria approach" in Evolutionary Computation and Optimization Algorithms in Software Engineering: Applications and Techniques,	IGI Global USA	2010
3.	'Climate Change and Human Health: Denial to Positive Action by Kanika Kathuria and Rajiv Gupta, (Authored a Chapter) Environmental Pollution: Assessment and Control Techniques	Biotech Books, New Delhi,	2013
4.	Ashoke K Sarkar, Shriniwas Arkatkar, Vinayak Rao and Indrajeet Ghosh, authored a chapter "Fundamentals of Transportation Systems for the text book for Class XI published by Central Board of Secondary Education, New Delhi.	Central Board of Secondary Education, New Delhi	2013
5.	'Analysis and Design of FRP Reinforced Concrete Structures' by S. B. Singh	McGraw-Hill Education Pvt. Ltd., New Delhi	2014
6.	S. N. Patel, (Authored a Chapter) "Advances in Structural Engineering, Chapter-13, " Nonlinear Finite Element Bending Analysis of Laminated Composite Shell Panels "	Springer India	2014
7.	Analysis and Design of FRP Reinforced Concrete Structures by S. B. Singh	McGraw-Hill Education Pvt. Ltd., New York, USA	2015
8.	Basics of Environmental Resource Management, Kamlesh Kumar	New Age International Publishers	2015

23. Details of patents and income generated None

24. Areas of consultancy and income generated

- Material testing (Steel bars, Cement, Aggregates, Binders, etc.)
- Mix design (Cement concrete and Bituminous concrete)
- In-situ tests on Soils

Civil Engineering department was assigned more than Rs. 23.28 lakhs consultancy works from government and departments such PWD, DRDO, NRRDA, etc.

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

S.N.	Faculty	To visit Lab./Industry/Institute	Country	Year
1	Dipendu Bhunia	visited Trinity College Dublin under ISCA Ireland-India Science foundation programme and University (abroad)-immersion programme, BITS Pilani	Ireland	2014

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

S.N.	Faculty	Committee
National committees		
1	Dr. Manoj Kumar	Member, Ch. Ranbir Singh University, Jind, court of university
2	Dr. Manoj Kumar	Expert member, Hazard Safety Cell by PWD Rajasthan
3	Prof. A. K. Sarkar	Member of Committee for Formulation of Guidelines for Performance Evaluation of State Technical Agencies
4	Prof. A. K. Sarkar	National Rural Roads Development Agency, Ministry of Rural Development, as member, Standing Advisory Committee, National Rural Roads Development Agency, Ministry of Rural Development
5	Prof. A. K. Sarkar	Member, Road Development Policy, Public Works Department, member, Road Development Policy, Public Works Department
6	Prof. A. K. Sarkar	Member, National Level Coordinator for Training and Skill Development programme to be offered by National Rural Road Development Agency
7	Prof. A. K. Sarkar	Member of Committee for Formulation of Guidelines for Performance Evaluation of State Technical Agencies, National Rural Roads Development Agency, Ministry of Rural Development
8	Prof. A. K. Sarkar	Working Group of the Traffic and Transportation, 2010-15
9	Prof. A. K. Sarkar	Member, Standing Advisory Committee, National Rural Roads Development Agency, Ministry of Rural Development, as member, Road Development Policy, Public Works Department
10	S. B. Singh	Nominated as Expert member of BIS committee for test methods on fibre reinforced cementitious composites
11	S. B. Singh	Nominated as Expert member of BIS committee for test methods on fiber reinforced cementitious composites.
12	S. B. Singh Ajit Pratap Singh	External Members of Advisory Committee of UGC-(DRS) SAP for different institutes in India
International committees		
1	S.B. Singh and Dipendu Bhunia	With Trinity college of Dublin, Ireland for Research as members of committee on Ireland India, Concrete Research Initiative (IICRI) Project.
2	S.B. Singh	UKIERI Project, Member, Collaborative Research (UK and India)

Editorial Boards		
1	Raaj Ramsankaran	Editorial Board member for “American Journal of Geographical Information Systems
2	A. P. Singh	Editorial board of ESSENCE – International Journal for Environmental Rehabilitation & Conservation (ISSN 0975 – 6272), and (ii) Editorial Advisory Board, Pollution Research
3	Shriniwas Arkatkar	Editorial Board member for three Journals (i) Transportation Research Group of India Magazine, (ii) Modern Traffic and Transportation Engineering Research and, (iii) International Journal for Traffic and Transport Engineering

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs

Faculty	Program attended	Place	Year	Remarks
All newly joined faculty	Intensive Teaching Workshop (ITW) organized by BITS Pilani every semester	Pilani	2014	Training

Project Funded by BITS under Research Initiation Grant Scheme

S. N.	Research Topic	Faculty	Amount	Duration	Remark
1	Investigation into the Behavior of Coupling	Dipendu Bhunia	2.0	2011-13	Completed
2	Dynamic buckling response of composite structures	S. N. Patel	2.0	2012-14	Completed
3	Micromodel Experiments Demonstrating Gravity and Capillary dominated Immiscible Flow of Mercury in Porous Media	Shibani K Jha	2.0	2013-2015	On-going

FACULTY MEMBER SELECTED FOR UNIVERSITY IMMERSION (ABROAD) PROGRAMME:

Faculty	Host Organization	Country	Year
Dipendu Bhunia	Trinity College Dublin, Ireland	Ireland	2014

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects: **100%**

All the students do in-house project (as a part of course curriculum) in the form of Lab oriented projects, Study oriented projects, Design projects within department, however, only a few students do inter-departmental projects.

- percentage of students doing projects in collaboration with other universities/industry/institute : **100%**

All the students go for Practice School-I and do their projects in industries. In the final year almost all the students go for Practice School-II and do their live projects in industries, however, a few students go for on/off-campus thesis in IITS/IIM etc.

The percentage of students who went for PS-II/off-campus thesis are as follows:

Year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Percentage	95	96	97	97.5	97

29. Awards / recognitions received at the national and international level by Faculty/Doctoral / post doctoral fellows/Students

S.No.	Faculty	Award / Recognition	Level	Year
1	Ajit Pratap Singh	Group expert, National Institute of Hydrology, GOI	National	
2	Prof. A. K. Sarkar	Working Group of the Traffic and Transportation,	National	2010-15
3	Amit Goel	Team mentor for National winners Of 3D Student Design Challenge organized by Autodesk	National	2013
4	Manoj Kumar	Member, Review the existing scheme of the UPSC Engineering Examination and to give his vital inputs on reforms needed in order to select the best lot of candidates	National	
5	S. B. Singh	Advisor to UPSC New Delhi for Conducting Personality Test of Engineering Services Examinations Candidate	National	January 13-17, 2014
6	S. B. Singh	Honored as Guest of Honor at Short Term Training Programme (STTP) on Computational and Experimental Methods for Advance Research in Composites	National	June 12-16, 2013
7	Shriniwas Arkatkar	Received Commendation Certificate Award by Indian Roads Congress for the paper: V. Thamizh Arasan and Shriniwas S. Arkatkar "Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic" Highway Research Journal, Indian Roads Congress, New Delhi	National	
8	Shriniwas Arkatkar	Indian Roads Congress Medal for outstanding paper on Road Research sponsored by Bihar PWD. Paper Title- Enhancing the Accuracy of Estimation of Passenger Car Unit for Vehicles of Heterogeneous Traffic	National	
9	Dipendu Bhunia	Invited to Trinity College Dublin as a visiting academic, funded by Science foundation Ireland-India fund, TCD and University-immersion programme, BITS Pilani.	International	May-July 2014

S.No.	Student	Award / Recognition	Level	Year
1	Sanchit Bajaj	Selected for summer internship under MITACS Globalink Program, been offered research internship at Queen's University	--	2014
2	Anvit Kumar Mittal	3 rd year BE Civil student featured in Autodesk Student Expert Program - Spotlight	--	2014
3	Siddharth awasthi	4 th year first degree student successfully completed his internship in Germany through DAAD-wise scholarship	--	
4	Pragnesh	The students of B.E. 4 th & 3 rd yr respectively were	--	2015.

	pahuja, and Sanchit Bajaj	Selected through MITACS for summer internship at Canada		
5	Devyani chaudhary	A 4 th year first degree student qualified IAS-SRF examination for summer internship at IISc Bangalore	--	
6	Anvit Kumar Mittal, Akshay singh Bisht, Anness Borthakur, Ankush Gupta, Ayush saxena and Amitabh Aggarwal	Two teams of BE Civil 3 rd year students – one comprising the Anvit Kumar Mittal, Akshay singh Bisht, and Anness Borthakur while the other of Ankush Gupta, Ayush Saxena and Amitabh Aggarwal were selected for the zonal round of 3-D design challenge conducted by Autodesk.	--	2014
7	Pragun Vinayak, Sanchit Bajaj, Vishal Kejriwal and Devendra Mittal	3 rd year students team got Second prize in paper presentation at cognizance at IIT Roorkee technical festival	--	2014
8	Viraj Voditel and Anvit Kumar Mittal	The students of B.E. 3 rd & 2 nd yr respectively Won the National award in the 3D Student Design Challenge organized by Autodesk	--	2013
9	Pragnesh Pahuja	The student of B.E. III rd yr was Selected for MITAS Globalink Summer Internship Program at University of Alberta	--	2013
10	Devyani Chowdhry	The student of B.E. 3 rd yr has been selected to work as a summer research intern at RWTH Aachen University, Germany	--	2013
11	Siddharth Awasthi	The student of B.E. 3 rd yr has been selected to work as a summer research intern at TU Darmstadt University, Germany	--	2013

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

S. No.	Seminars/ Conferences/Workshops organized	Funding source	Level	Year
1	Impact of PMGSY Roads on Accessibility in Rural Areas	NRRDA	National	2014
2	Autodesk AutoCAD workshops - 2 nos.	Autodesk/BITS	National	2013
3	Autodesk AutoCAD workshops - 2 nos.	Autodesk/BITS	National	2014
4	Structural Health Monitoring and Rehabilitation	BITS Pilani	National	2013

31. Code of ethics of research followed by the Department.

"The department follows the code of ethics specified by the Institute". The Institute code of ethics is detailed in the SSR.

32. Student profile programme-wise:

Name of the programme	Total Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
B.E. (Hons.) Civil	752256	280	31	100%	100%
M.E. (Structures)	24545	51	14	100%	100%
M.E. (Transportation)		29	11	100%	100%
M.E. (Infrastructure Systems)		25	9	100%	100%

*BITS follows a credit based system and cafeteria approach in offering of courses. Students not performing well are monitored by ACB (Academic Counselling Board), HDCC (Higher Degree Counselling Cell) and ACC (Academic Counselling Cell). Their pace is slowed down. Normally not more than 3% students (including all programmes, B.E., B. Pharm, M.Sc, M.Pharm and M.E. etc.) at a given point of time are under the purview of ACB.

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Department does not maintain these details				

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

We do not capture this data through any formal process.

35. Student progression

Student progression	Percentage against enrolled
UG to PG	1.6%
PG to M.Phil.	None
PG to Ph.D.	5.13 %
Ph.D. to Post-Doctoral	None
Employed	
Campus selection	87 %
Other than campus recruitment	
Entrepreneurs	2%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	17.65% (29.4%)
from other universities within the State	--
from universities from other States	82.35% (70.60%)
from universities outside the country	--

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period. Two (2)

38. Present details of departmental infrastructural facilities with regard to

a) Library

There is no separate department library. But there is central library facility in Civil Engineering Category.

No. of books in civil engineering	5606
No. of journals in civil engineering*	15 in hard copy and remaining are digitized out of approx. 11000 (overall)
No. of Ph.D. thesis in civil engineering	23
No. of e-books in civil engineering	2157

* These journals include journals from ASCE, Springer, ACI, Elsevier etc.

b) Internet facilities for staff and students

Internet facilities for all staff and students are available at all places within the institute buildings, in student hostels, staff quarters.

c) Students' laboratories

Sl. No.	Laboratories	Facilities (Instruments/Apparatus/Softwares)
1.	Structural Engineering Lab	Portal Frame Apparatus, Redundant Joint Apparatus, Elastically Couple Beam Apparatus, Deflection of Truss Apparatus, Elastic Properties of Deflected Beam Apparatus, 3-Hinged Arch Apparatus, Compression Testing Machine (200kN), Column and Strut Apparatus, Unsymmetrical Bending Apparatus, Shake Table, Static Universal Testing Machine (UTM) (1000 kN), Dynamic UTM (100 kN), Servo Hydraulic Actuator (200 kN), Torsion Testing Apparatus
2.	Surveying Lab	Total Station, Digital Theodolite, Transit Theodolite, Tacheometer, Levels (Dumpy, Tilting, Auto), Plane Table, Digital Planimeter, Prismatic compass, Handheld GPS, Metric Chain (20 m, 30 m), Ranging Rod, Fibre Tape (100 m), Arrow, Cross-staff, Optical square
3.	Concrete Lab	Self Compacting Concrete Mixer, Carbonation Chamber, Slump Cone, Compression Testing Machine (2000 kN), Compaction Factor Apparatus, Cement Tensile Testing Apparatus, Hobart Mixer, Cube Cutter, Flexural Strength Measuring Apparatus (Beam), 4-Point Loading Apparatus, Core Cutter, Vicat Apparatus, Vibrator Table, Vee Bee Test
4.	Soil Mechanics and Foundation Engineering Lab	Direct Shear Test Apparatus (Manual and Digital), Triaxial Test Apparatus, Relative Density Test Apparatus, Unconfined Compressive Test Apparatus, Consolidation Test Apparatus, Permeability Test Apparatus, Field Density Test Apparatus, IS Sieves, Hydrometer, CBR Test Apparatus, SPT Apparatus, DCPT Apparatus, Casagrande Apparatus
5.	Transportation Engineering Lab	Los Angeles Abrasion Testing Machine, Standard and Dynamic Cone Penetrometer, Impact Testing Machine, Ductility Machine, Thickness and Elongation Gauge, CBR Machine (Manual and Digital), Ring & Ball Apparatus, Rectangular Water Bath, Tar Viscometer, Speed Radar Gun, Field CBR

		Equipment, Light Weight Deflectometer, Marshall Stability Apparatus (Manual and Digital), Auto Exhaust Multi Gas Analyser, Skid Resistance Tester, Bump Integrator, Merlin, Benkleman Beam, Sieves, Trazer, Two Handycams
6.	Public Health Engineering Lab	Orbital Incubator Shaker, Hot Air Oven, Deep Refrigerator, Vertical Autoclave, UV Spectrophotometer, Jar Test Apparatus, Incubator, Nephelometer, COD Digestor, DR Spectrophotometer, Digital DO/pH Meter, Centrifuge, Peristaltic pumps
7.	Hydraulics Lab	Stoke's Apparatus, Discharge Measuring Apparatus (V-Notch), Osborne Reynolds Apparatus, Hydraulic Jump Apparatus, Impact of Jet Apparatus, Heleshaw Apparatus, Metacentric Height Apparatus, Fixed Bed Flume, Multi-Purpose Flume, Flow through orifice under Varying and Constant Head Apparatus, Anemometer, Viscometer, Pipe Surge & Water Hammer
8.	GIS Lab & Computer center	VISSIM, ArcGIS, Ansys, CivilFEM, Abaqus, ETABS, SAP, GEO5, AutoCAD, Lahey-fujitsu Fortran, RAM Concept, STAAD Foundation Advance, Structural Synchronizer, MX Roads, Bentley Maps, Bentley PowerCivil, Projectwise, STAAD Beaba Module, Bentley Products (STAAD Pro, STAAD Foundation)

d) Research laboratories

Civil Engineering Department offers one of the best laboratory facilities to enable its students to perform high quality research. The following is the list of well-equipped laboratories:

- Structural Engineering Lab
- Concrete Technology Lab
- Transportation Engineering Lab
- Public Health Engineering Lab
- Hydraulics Lab
- GIS Lab

39. List of doctoral, post-doctoral students and Research Associates

a. from the host institution/university

Sl. No.	Name	Specialization
1.	G. Muthukumar	Structural Engineering
2.	Himanshu Chawla	Structural Engineering
3.	Tanmay Gupta	Structural Engineering
4.	Pankaj Munjal	Structural Engineering
5.	Shaik Hussain	Structural Engineering
6.	Vummadisetti Sudhir	Structural Engineering
7.	Vashanth Keshav	Structural Engineering
8.	K Shalini	Transportation Engineering
9.	Dewal Mishra	Transportation Engineering
10.	Makrand Wagale	Transportation Engineering
11.	Vidhi Vyas	Transportation Engineering
12.	R. Srinivas	Water Resources Engineering
13.	Harish Sharma	Hydraulics Engineering

14.	Manpreet Singh	Building Materials
15.	Arun Nihal Singh	GIS and Environmental Engineering
16.	Gaurav Kumar	GIS and Remote Sensing
17.	Anuradha Devi	Environmental Engineering
18.	Rahul Dandautiya	Environmental Engineering

b. from other institutions/universities

Sl. No.	ID. No.	Name	Specialization
1.	2013PHXF106P	Prashant Bhakar	Water Resources Engineering
2.	2008PHXF419P	Sumanta Chakrabarti	Water Resources Engineering

40. Number of post graduate students getting financial assistance from the university:

- During 2010-2015, 249 students of M.E. were given financial assistance either in the form stipend or in the form 40% fee waiver
- During 2010-2015, twenty research scholars were given 90% fee waiver and out of them for four research scholar Institute provided a financial assistance of Rs. 16000/- per month.

41 Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

No (No new programme was introduced during this period)

42. Does the department obtain feedback from

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes; Departmental committee on academics (DCA) and Cross-Campus Departmental Committee for Academics (CCDCA) use the faculty feedback to revise and improve the curriculum.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes; the feedback is utilized to improve teaching, curriculum development and also laboratory infrastructure development.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes; programme structure is modified based on the collective suggestions from alumni/employers in industry/institute through organizing seminar/workshop

43. List the distinguished alumni of the department (maximum 10)

Sl. No.	Name of distinguished alumni	Distinguished affiliation	Passing year
1.	Mr. Rakesh Handoo	Country Head-Marketing; Power tools, Bosch Ltd., Bangalore	1995
2.	Mr. Neeraj Sharma	Head of the Department, Bridges, Isolux Corsab, Spain	1995
3.	Mr. Neeraj Agrawal	Chief Manager, Siemens Power Engg. Pvt. Ltd., Gurgaon	1991

4.	Mr. Amit Kumar Mittal	Exec VP, Reliance Energy Limited, Navi Mumbai	1987
5.	Mr. Nikhil Deep Mathur	Regional General Manager, Indian Oil Corporation	1982
6.	Mr. Santosh Kumar Jain	Assistant General Manager, SAIL, Bhilai Steel Plant, Bhilai	1979
7.	Mr. Anuj Aggarwal	Member of Board of Airport Authority of India	1979
8.	Mr. Ambuj Jain	CEO, Hindustan Construction Company	1978
9.	Mr. Jaiveer Srivastava	Chairman and Managing Director, Fertilizers and Chemicals Travancore Ltd.	1977
10.	Mr. OM Gupta	Chairman & Founder of Ashiana Builders	1969

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

These types of programmes are normally held every year by the Civil Engineering Department. Since the last FIVE years, the following special lectures were organized by the department:

Sl. No.	Speaker with designation and organization	Topic/Area	Date/Year
1.	Dr. S Velmurugan, Head, Traffic Engineering and Safety division, Central Road Research Institute (CRRI)	1. Development of Free Speed Equations and Speed - Flow Models for Inter-City Highways and Urban Expressways through Traditional and Microscopic Approaches, 2. Road Safety Audit - Typical Case Studies	24 th Sept, 2011
2.	Dr. E. Madhu Scientist E-I, Transportation Planning and Environment Division, Central Road Research Institute (CRRI)	Fuzzy logic based car following and lane change model for microscopic traffic flow simulation	24 th Sept. 2011
3.	Prof. Tarun Kant Civil Engineering Department IIT Bombay	Development of Composite Mechanics in the Last Five Decades	5 th November 2011
4.	Prof. K. S. Reddy, Dept. of Civil Engineering, IIT Kharagpur	Recent Amendments in the Design of Rigid and Flexible Pavements for Highways using new IRC codes	March 29, 2013
5.	Vasudeo Pandya, BITS Alumni, Consulting Structural Engineers, Ram Consultant, USA	Learning from Failures	April 10, 2013
6.	Dr. S Velmurugan, Head, Traffic Engineering and Safety division Central Road Research Institute (CRRI)	Road Safety Scenario in India: Remedial Measures through Road Safety Audit An overview of Indian Highway Capacity Study	April 10, 2015
7.	Mr. Perses Bilimoria, Founder & Chief Executive Officer, EarthSoul India Pvt. Ltd., Mumbai	Sustainable Initiatives in Waste Management for Campuses.	Aug. 19, 2014
8.	Prof. Soumitra Dutta, Academic Dean, Samuel Cortis Johnson Graduate School of Management, Cornell University	Leadership in Technology and Innovation: Global trends and challenges for India.	April 22, 2014

9.	Mr. Amit Mukherjee Senior Planning Engineer, Petrofac International Limited	Challenges and Opportunities in Civil Engineering.	Sept. 14, 2013
10.	Mr. Manu Amitabh, IES, Delhi PWD	Life as an Indian Engineering Services Officer.	Sept. 8, 2013
11.	Mr. Christian Sarkar, Co-founder, The \$300 House Project CEO, Ecosystem Intelligence CEO, Double Loop Marketing LLC Director, Innovation for a sustainable world	THE \$300 HOUSE	Aug. 21, 2013
12.	Mr. Amlan Mukherjee, Associate Professor, Department of Civil and Environmental Engineering, Michigan Technological University	Application of Information Technology in Construction Engineering and Project Management	April 7, 2013
13.	Dr. Abhishek Singh, Senior Environmental Scientist at Intera Inc.	Groundwater Simulation	Mar. 10, 2013
14.	Mr. Anyesha Mookherjee, Licensed Professional Engineer (PE) and Professional Traffic Operations Engineer (PTOE) Maryland State Highway Administration	Introduction to Urban Transportation Planning	Oct. 27, 2012
15.	Mr. Anurag Jaipuria, Engineer, Global Research Centre, GE	Composition in Construction : Tradition vs Innovation.	Aug. 27, 2012

45. List the teaching methods adopted by the faculty for different programmes.

Programme	Teaching Methods	Teaching component	Teaching Aids
On-campus	Students and teacher face each other either directly or through a live interactive online video sessions	Lectures, Tutorials	Black board, power point slides using LCD projector Immersive Tele-presence, High-definition Video conferencing and Live Streaming technologies edX based MOOC (Massive Open Online Courses) platform Resource sharing through Nalanda (online portal) where lecture notes are shared for the students' for 24x7 access throughout the semester
		Laboratory sessions	Hands on
Off-campus (cement technology)	Students and teacher are connected through live and interactive online audio sessions	Lectures	Internet Based Desktop Video Conferencing systems using Cisco WebEx technology

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Continuous evaluations are being done for every course to ensure that the programme objectives are consistently met and learning outcomes are monitored. The students are also encouraged to provide feedbacks on the courses as to what effects/improvements are required (if any), which in turn also helps in enhancement on part of the faculty, through a 24x7 online feedback portal. Further details on the various evaluation components for each course are given below:

On-campus	
<ul style="list-style-type: none"> • Evaluation components are categorized as either Close book or Open book components. • Evaluation components include announced/unannounced quizzes, home or laboratory assignments, Mid-semester examination or Tests 1 and 2, End-Semester Laboratory examination, and End-Semester Comprehensive examination. Substantial weightage is given to each component which is announced at the beginning of the semester. • Evaluation sheets are distributed to students within 1 week of the component held and statistics are uploaded to web portal. • Student can apply for on-the-spot recheck in case concerned student is not satisfied with assigned marks. In such cases, evaluation sheets are re-evaluated within 3 days with appropriate comments and again shown to the concerned student. • Based on relative performance of students, students are accordingly graded. Instruction Division independently monitors all evaluation components. 	
Off-campus (Cement Technology)	
<ul style="list-style-type: none"> • Evaluation components are categorized as either Close book or Open book components. • Evaluation components include home assignments and End-Semester Comprehensive examination. • Evaluation sheets are returned to Work Integrated Learning Division within 1 week of the receipt and statistics are uploaded to web portal named eLearn, Integrated e-Learning Portal. • Student can apply for recheck to WILP Division in case concerned student is not satisfied with assigned marks. In such cases, evaluation sheets are re-evaluated within 3 days with appropriate comments and again returned to WILP Division. • Based on relative performance of students, students are accordingly graded. • WILP Division independently monitors all evaluation components. 	

47. Highlight the participation of students and faculty in extension activities.

- List of Workshops Conducted by Faculty at Pilani Campus for Outside Participants:

Sl. No.	Name of Workshop/Conference/Seminar	Other Associated Colleges /Organizations	Date/Year
1.	UKIERI Concrete Congress	IIT Delhi	2011
2.	UKIERI Concrete Congress	NIT Jalandhar	March 5-8, 2013
3.	National Workshop on Structural Health Monitoring and Rehabilitation	DST, CSIR, ABG UltraTech	September 19-20, 2012
4.	Expert Meeting for the Project entitled "Impact of PMGSY roads on Accessibility in rural areas"	Sponsored by National Rural Road Development Agency (NRRDA), Ministry of Rural Development, Govt. of India	5-6 September 2014
5.	National Convention on Civil Infra structure systems	Airport Authority of India, CRRI, Shapoorji Palonji.	April, 2015
6.	AutoCAD workshops and international certification exam	AUTODESK	2014-15

List of Faculty extension activities

Sl. No	Extension activities
1	Prof. S.B. Singh, Prof. Rajiv Gupta and Dr. Dipendu Bhunia delivered Guest Lecture in the LEO Workshop Organized by Bokaro Steel Plant (SAIL), Bokaro, 16-17th July 2013.
2	Prof. A.K. Sarkar and Prof. A.P. Singh are involved in Pradhan Mantri Gramin Sadak Yojna (PMGSY) project.

List of Students extension activities

Sl. No	Extension activities
1.	The Ex-Secretary (student) of Civil Engineering Association (CEA), Mr. Siddharth Awasthi got a chance to work as an intern at the Institute of Concrete and Masonry under Technical University of Darmstadt, Germany. He received DAAD Scholarship in 2014 for the internship and working on the project titled "Membrane compressive stresses in masonry construction".

48. Give details of "beyond syllabus scholarly activities" of the department.

The "beyond syllabus scholarly activities" of the department are as listed below:

S. N.	Extension activities
1.	In year 2014, one day site visit was organized at Jaipur Metro. Students, including graduate and undergraduate students, went to 4 sites where the work of Jaipur Metro was in progress. It was a great learning experience and the engineers at every site explained everything in great detail and clarified all doubts and queries of students.
2.	In 2014 a study tour was arranged for BE third year students. In this tour, sixteen students visited Tehri Hydro Development Corporation (THDC) India Ltd. and discussed the problems faced by them in the Tehri Hydro Power Plant and Koteswar Dam projects. Later on they proposed solution to these problems and for this they received cash prize and certificates.
3.	A two day rigorous training on January 17 th and 18 th , 2015 was given by the official partner of AutoDesk University to prepare students for the Certification Exam for the AutoCAD Certified Professional Recognition. The exam was held at BITS Pilani itself at a discounted price of 60% on 29 th January, 2015. There have been a significant number of turnouts for the exam and a great response is received from the students
4.	A day long workshop was organized on 18 th October, 2014 by officials from AutoDesk to familiarize students taking part in their 3D Design Challenge which was an international level competition. Students who attended the workshop got greatly benefited from it. Two of the registered team got selected for the Zonals Round.
5.	The Civil Engineering Students Anvit Kumar Mittal along with Viraj Voditel and Akshay Singh Bisht participated in CAD category in the competition organized by Autodesk, "3-D Student Design Challenge in which they designed a fish shaped auditorium. They attained a second rank at the national level and bagged a cash price of Rs. 30,000/-. For B.I.M category, they designed a prison campus of 60 acres consisting of sports complex, pool, prison cell, library, etc. The finals for this category were held in Mumbai, in which Anvit and Viraj participated with Dr. Amit Goel, a faculty member of the Civil Engineering Department. They emerged winners here as well, standing first in the competition. They were awarded a cash price of Rs. 1,20,000/- and a sponsored trip to Las Vegas, to represent India at the global competition, 'Autodesk Panorama' to be held as a part of Autodesk University 2013 Conference on December 3-5, 2013 and were certified as Autodesk professionals.
6.	Mr. Akshay Rao Hoshing and Mr. Harmanpreet Singh Bhattal of M. E. in Structural Engineering

	participated in BOSM'14 held during 19 th to 23 rd September, 2014 at BITS Pilani, Pilani Campus in the Power-lifting event. Mr. Akshay Rao Hoshing won the 2nd place in 67 to 72 Kgs category. Power-lifting being a combination of bench press, squats and dead lifts, Mr. Akshay managed to lift a total of 365kgs (bench press: 95kgs, dead lift: 150kgs, squats: 120kgs).
7.	The department organizes Civil Engineering Fest 'Archetype' every year which includes the events 'Urbanistica', 'Cliffhanger', 'Geoteknik' and 'Bridge the Gap'.
8.	In the technical feasible of the Institute APOGEE events such as Shrishti, GridLock Istruct E, Krazy Bridge are organized by the department.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The department has been contributing towards generating new knowledge by conducting various advanced training sessions as follows:

- Advanced training to the industry such as structural health monitoring and rehabilitation of structural system
- Pradhan Mantri Gram Sadak Yojna (PMGSY) training programmes

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

1. Strengths:

- Quality teaching
- Quality research
- Good quality/bright students
- Dynamic and flexible course curriculum
- Strong alumni network

2. Weakness:

- There is always a need for a good and sincere faculty
- Remote location

3. Opportunities:

- Infrastructure development
- Seven and half month's industrial projects (Practice School) for students
- Promoting Entrepreneurship and strong alumni network
- University / Industry – Immersion schemes for faculty
- Floating undergraduate and graduate programme as per Industry needs

4. Challenges:

- Getting external funding especially from industry
- Hiring new faculty members and retaining them
- Attracting the industries for collaborative corporate undergraduate and graduate programmes

52. Future plans of the department.

The Civil Engineering Department plans to take up the following activities in the near future:

- Setting and upgrading the existing laboratories with state-of-the-art facilities
- Identification of more thrust areas in terms of research and consultancy
- Development of core and interdisciplinary groups in the form of Centres of Excellence
- University-Industry linkage through research and consultancies apart from practice school programmes
- Strengthening the existing Undergraduate, Postgraduate and Research programmes with the provision of fellowships, adequate to attract the best talent for teaching and research needs
- Certification of laboratories as Quality Control Cells

53. Any other information regarding your department which you would like to include.

With the aim of course curriculum enhancement and restructuring, benchmarking was done with the help of external experts from reputed institutes/industry along with faculty members in the department in the year 2010.

• List of Chaired Sessions by Faculty Members

Sl. No.	Faculty Name	Details of chaired sessions
1.	Rajiv Gupta	<ul style="list-style-type: none"> • National Conference on “Sustainable Development of Urban Infrastructure” VIT, Nagpur, From 18th – 19th June 2010 • Workshop on Green Building Practices and Impact on Environmental Performance (GBP & IEP-2010) 23rd Oct, 2010 organized by Civil Engg. Group, BITS-Pilani, Hyderabad Campus, 2010 • Chaired and Lead talk: Session “Planning and Development” “14th Annual International Conference and Exhibition on Geospatial Information Technology and Applications, India Geospatial Forum, 7-9 Feb, 2012, Gurgaon, India • 8th Conference on sustainable Development of Energy, Water and Environment Systems, University of Zagreb and Cologne University of Applied, Sciences and Aalborg University; Sept - 22-27, 2013 Dubrovnik Conference, FSB Ivana Lucica 5, HR -10000, Zagreb, Croatia sponsored by UNESCO. • All India Seminar on Innovations in Green Building Technology, Jan 17 & 18, 2014, organized by The Institutions of Engineers (India) Nagpur Local Centre and Maharashtra State Centre • 12th International Conference on Fuzzy Systems and Knowledge Discover (FSKD’2015), held by Hunan University on August 15-17, 2015, in Zhangjiajie, China.
2.	S. B. Singh	<ul style="list-style-type: none"> • Chaired Two Sessions (Session no. 2 and 4) at the 5th Asia-Pacific Young Researchers and Graduates Symposium (YRGS) held at MNIT Jaipur, October 15-16, 2013. • Chaired the last Session of International Conference (FIBCON2012) on “Fiber Reinforced Concrete-Global Developments,” at Nagpur, Maharashtra, India, February13-14, 2012. • Chaired a Seminar Session on “Rehabilitation and Retrofitting for Sustainable Structures” at Institution of Engineers Building at Jodhpur, Rajasthan, August 19, 2011. • Chaired a Panel Discussion on “Concrete for Sustainable Infrastructure” at GNDEC, Punjab, Ludhiana at UKIERI Research Seminar held on 17th Feb., 2010.

		<ul style="list-style-type: none"> • Chaired a conference session (MAST-07) at NIT Warangal, Dec. 15, 2007.
3.	A. P. Singh	<ul style="list-style-type: none"> • Chaired a session titled “Sustainability Assessment and Performance Measurement” in International Conference on Sustainable Manufacturing: Issues, Trends and Practices during 10-12 November, 2011 held at BITS Pilani
4.	S. N. Patel	<ul style="list-style-type: none"> • Session-M2C [Theme- Buckling, Stability and Non-linear Behaviour of Structures] in the 2013 World Congress on Advances in Structural Engineering and Mechanics(ASEM13),8-12, September-2013, Korea Adv. Inst. of Sci. & Tech. (KAIST) in cooperation with Techno-Press Journals, ICC, Jeju, South Korea. • Technical Session-I, in the National Conference on Recent Trends and Innovations in Civil Engineering(RTICE-2013), 15-16, November-2013, Dept. of Civil Engineering, BRCM College of Engineering and Technology, Bahal-127028, Bhiwani, Haryana.

• **List of Key-note Lectures/Invited Talks / Seminars / Workshops Delivered by Faculty:**

Sl. No.	Name of Speaker, Topic	Details of Event, Organization	Date/Year
1.	Prof. Rajiv Gupta, Delivered an Invited lecture on Planning to Living	Green Building Practices and Impact on Environmental Performance, BITS Pilani, Hyd Campus	23 rd October, 2010
2.	Prof A.P Singh , Delivered a key note lecture on The Appropriateness of multi-criteria analysis and fuzzy logic in water resources management	All India Seminar on Emerging and Sustainable Techniques in Civil Engineering, CoTE, Maharana Pratap Univ. of Agri. & Tech., Udaipur and the Institution of Engineers (India)	18-19 th October, 2010
3.	Dr. Anupam Singhal, Disaster Management Plan for an Industry-A case study	Training program on Disaster, Management College of Engineering & Technology, Bikaner organized by NITTR (Chandigarh)	20-24 th September, 2010
4.	Prof. Rajiv Gupta, Delivered an Invited lecture on Mass management using GIS and fuzzy logic	Sustainable Development of Urban Infrastructure, VIT, Nagpur	18 th – 19 th June, 2010
5.	Prof S.B Singh, Delivered an Invited Keynote Lecture on Innovative Ductile Fiber Reinforced Cementitious Composites for Structural Applications	All India Seminar on Rehabilitation and Retrofitting for Sustainable Structures, Jodhpur	20 th August, 2011
6.	Prof A. P Singh, Delivered a key note lecture on Fuzzy comprehensive assessment techniques and its applications in water resources management	National Seminar on Emerging Trends in Science and Technology, Faculty of Science and Technology, ICFAI University, Tripura.	25–26 th March, 2011
7.	Prof A. P Singh, Actively participated in the Indo-US Workshop on “Effective Teaching at College/University Level”	IIIT Delhi,	10–12 th February, 2011.

8.	Prof A. P Singh, Actively participated in a workshop on Developing Performance Goals and Standards for Faculty members	BITS Pilani	13 th April, 2011.
9.	Prof. A. K. Sarkar Delivered an Invited lecture on 'Reorienting Engineering Education in India'	National Seminar on Emerging Trends in Science and Technology, ICFAI University, Tripura	25-26 th March, 2011
10.	Prof. A. K. Sarkar, Delivered an Invited lecture on Developing a Sustainable Transportation Plan for Agartala	First Tripura Science Congress, Agartala	8-9 th September, 2011
11.	Prof. A. K. Sarkar, Delivered a Keynote address on Role of Social Sciences in Engineering Education	Int. Conf. on Consultation and Experience Sharing non Role of Humanities and Social Sciences in Holistic Development of Future Technocrats- Looking Ahead,Jaip ee University, Wagnaghat, (HP)	23-14 September 2011
12.	Prof A. P Singh, Delivered a key note lecture on Operational Aspects of Teaching & Continuous Evaluation and dealing of difficult students	Faculty Development Programme VIT University, Jaipur	7 th July, 2012
13.	Prof A. P Singh, Delivered a key note lecture on Classroom presentation skills in higher education	Faculty Development Programme organized by VIT University, Jaipur	7 th July, 2012.
14.	Dr. Dipendu Bhunia, Invited Lecture on A Systematic Design Approach of Coupled Shear Walls	Civil Engineering Department, IT BHU	3-4 th March 2012
15.	Prof. A.K Sarkar, Delivered an Invited lecture on Use of Non-conventional Materials for the Construction of Low-volume Roads	Non-Conventional Materials/ Technologies, NRRDA, CRR I	18 th February, 2012
16.	Prof. A. K Sarkar delivered a keynote lecture on "A few tips to be a successful teacher"	Skill Development Programme at Vivekananda Institute of Technology, Jaipur	2012
17.	Prof S.B Singh, Delivered invited lecture on Innovative Ductile Fiber Reinforced Cementitious Composites for Structural Applications	National Conference on Recent Advances in Composites (NCRAC 2012), Hyderabad.	15-16 th June, 2012.
18.	Prof S.B Singh, Delivered a Keynote Inaugural Lecture at Short-Term Training	Advance Research in Composites, MNIT	12-16 th June,

	Programme on Computational and Experimental Methods	Jaipur,	2013.
19.	Prof S. B Singh, Delivered Expert Lecture on Innovative Ductile Cementitious Composites for Structural Applications, at Institution of Engineers Building	UltraTech Cement Technical Lecture in partnership with the Institution of Engineers, Baroda,	28 th September, 2013
20.	Prof S.B Singh, Presented an Invited UKIERI research Poster on Sustainable Concrete Infrastructures	UKIERI Showcase Event held at British Council Division, New Delhi.	14 th October, 2013
21.	Prof S.B Singh, Delivered Keynote Lecture on Ductile FRP System and its Structural Applications at the	5th Asia-Pacific Young Researchers and Graduates Symposium YRGS 2013, MNIT Jaipur	15 th October, 2013.
22.	Prof. Rajiv Gupta, Invited lecture on basement, storm water and cable galleries	LEO Workshop Organized by Bokaro Steel Plant (SAIL), Bokaro	16-17 th July, 2013
23.	Dr. Dipendu Bhunia, Invited Lecture on Investigation into the Behaviour of Coupling Beams	TE-QIP Workshop Organized by Civil Engineering Department, VNIT Nagpur,	22-23 th March, 2013
24.	Dr. Dipendu Bhunia, Guest Lecture on Residual Life Assessment of Industrial Structures	LEO Workshop Organized by Bokaro Steel Plant (SAIL), Bokaro,	16-17 th July, 2013
25.	Prof A. P Singh, participated, presented and published a research paper titled "Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India"	10th EASTS Conference, Taipei Taiwan	9-12 th September, 2013
26.	Dr. Anupam Singhal, Expert talk on Design of Water Treatment Plant: A Case Study	Urban Infrastructure Development Project (RUIDP), Dept. of Civil Engineering, MNIT-Jaipur	11 th August, 2013.
27.	Dr. Anupam Singhal, Designing aspects of Water Treatment Plant	Sobhasaria Engineering College (SGI), Sikar	16 th November, 2013.
28.	Prof Rajiv Gupta was invited as Chief Guest and Addressed on 'Engineering with the purpose',	at BRCM college at Bahal, Haryana on Occasion of Engineer's Day	15 th Sept. 2013
29.	Dr. Dipendu Bhunia, Invited Lecture on A Study on the Behaviour of Coupled Shear Walls	Department of Civil and Environmental Engineering, TCD Dublin, Ireland	19 th June, 2014

30.	Dr. S.N Patel, Presented two lectures in the workshop of "Analysis and Design of structures using STADD PRO"	Dept. of Civil Engineering, BRCM College of Engineering and Technology. Bahal, Bhiwani, Haryana	8-9 th February, 2014
31.	Dr. S.N Patel, Presented a lecture entitled "Analysis of Structures- Basic to Advance"	Dept. of Civil Engineering, BRCM College of Engineering and Technology. Bahal, Bhiwani, Haryana.	12 th March, 2015
32.	Prof S.B Singh, Delivered keynote Lecture on Development and Innovative Applications of FRP Materials for Concrete Structures	Seminar on Mitigation of Seismic Effects on Infrastructure Projects, Department of Civil Engineering, Andhra University, Visakhapatnam	30 th March, 2015
33.	Prof. Rajiv Gupta, Delivered Key note address in 8th Conference on Sustainable Development of Energy, Water and Environment Systems,	University of Zagreb and Cologne University of Applied, Sciences and Aalborg University; Dubrovnik Conference, FSB Ivana Lucica 5, HR -10000, Zagreb, Croatia sponsored by UNESCO,	Sept - 2013
34.	Prof. Rajiv Gupta, delivered a Key note address on "E-Construction"	National Conference on Recent Trends and Innovation in Civil Engineering RTICE-2013 BRCM College of Engineering and Technology Bahal, Bhiwani, Haryana.	(15th-16th November, 2013)
35.	Prof. Rajiv Gupta, delivered a Key note address on 'Innovations in Green Building Technology'	All India Seminar organized by The Institutions of Engineers (India) Nagpur Local Centre and Maharashtra State Centre	Jan 17-18, 2014

- **List of other professional activities by Faculty:**

- Prof A. K. Sarkar, invited by Regional Secretariat for Asia and Pacific, IFRTD to attend the Annual Regional Meeting at Bangkok, Thailand during 9-11 October 2010
- Prof. Rajiv Gupta, was invited as Chief Guest at National Conference on Recent Trends and Innovation in Civil Engineering RTICE-2013 (15th-16th November, 2013) BRCM College of Engineering and Technology Bahal-127028, Bhiwani, Haryana
- Prof Rajiv Gupta was invited as Chief Guest at BRCM college at Bahal, Haryana on Occasion of Engineer's Day on 15th Sept. 2013.
- Prof. S. B Singh was invited for a Technical Panel Discussion on "Rehabilitation and Retrofitting for Sustainable Structures" at Institution of Engineers Building at Jodhpur, Rajasthan, August 20, 2011
- Prof. S. B Singh, Acted as an Advisor to UPSC New Delhi for Conducting Personality Test of Engineering Services Examinations Candidate (2013 & 2014)
- Prof. S. B Singh, Guest of Honor at Short Term Training Programme (STTP) on Computational and Experimental Methods for Advance Research in Composites, MNIT Jaipur, June 12-16, 2013

- Prof. S. B. Singh, Invited as an Expert Committee Member for Comments on Honey Combing of Vivekanand Lecture Theatre Complex at MNIT Jaipur along with Prof. Bishwajeet Bhattacharjee, Feb. 24, 2015.
- Prof. S. B. Singh, Honored as Chief Guest at 3rd National Conference on Recent Trends in Concrete Composites for Structural Systems (RTCCSS-09), Erode, Tamil Nadu, India, April 03, 2009.
- Prof. S. B. Singh, Guest of Honor at Seminar on Mitigation of Seismic Effects on Infrastructure Projects, Sponsored by UGC, New Delhi, Andhra University, Visakhapatnam, March 30, 2015.
- Prof. S. B. Singh, Appointed as Chairman of CITS, Rajasthan, Since Nov. 2010
- Prof. S. B. Singh and Dr. Dipendu Bhunia , organised a National Workshop on Structural Health Monitoring and Rehabilitation, September 19-20, 2012
- Dr. Amit Goel, Member of organizing committee, International workshop on Construction of dams and tunnels in weak rocks, Jaypee University of Information Technology, Solan, H. P., 25-26 May, 2011.
- Dr. Amit Goel, Coordinator, Interactive web seminar on 'Introduction to Bentley MXRoads software for design of pavement systems' Civil Engineering Department, Jaypee University of Information Technology, Solan, H. P., 9th November, 2011.
- Dr. Amit Goel, Assistant Coordinator, National student conference, Civil Engineering Department, Jaypee University of Information Technology, Solan, H. P., 31 March- 1 April, 2012.
- Dr. Amit Goel played key role in making academic collaboration happen between Autodesk and BITS Pilani and arranged two meetings between BITS and Autodesk Officials in October-November, 2014.

**Pilani Campus: Evaluative Report of the Department
COMPUTER SCIENCE AND INFORMATION SYSTEMS**

1. Name of the Department : Department of Computer Science and Information Systems

2. Year of establishment of the Department: 1971

3. Is the Department part of a School/Faculty of the university?

Departments function as independent entities in the university and are not part of any school or faculty.

4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).

Sr. No.	Programme Name	Level (UG/PG)
1	B.E. (Hons.) Computer Science	UG
2	M.Sc.(Tech.) Information Systems	UG
3	M.E. Computer Science	PG
4	M.E. Software Systems	PG
5	Ph.D.*	Doctor of Philosophy

* Department currently offers full time and part time doctoral programmes. In addition to this, department also offers Ph.D. Program for internal faculty members under Faculty-Development Programme.

WILP-Specific Data:

Sr. No.	Degree	Programme Name	Level (UG/PG)
1.	B.S.	Information Systems	UG
2.	B.Tech.	Information Systems	UG
3.	M.S.	Software Engineering	PG*
4.	M.Tech.	Software Engineering	PG*
5.	M.S.	Software Systems	PG*
6.	M.Tech.	Software Systems	PG*
7.	M.S.	Telecommunications and Software Engineering	PG*

* The duration of PG program could be of 4-Semester or 8-Semester duration depending on the input qualification.

5. Interdisciplinary programmes and departments involved: NIL

6. Courses in collaboration with other universities, industries, foreign institutions, etc.

Practice School Data

Sr. No.	Programme Code	Programme Name	Level (UG/PG)
1	BITS F221	Practice School-1	UG
2	BITS F412	Practice School-II	UG
3	BITS G560	Practice School	PG

As a part of curriculum, every undergraduate and post graduate student has an option of attending Practice school program. As part of this program an undergraduate student spends seven and half months in industry (2 months during the summer term at the end of 2nd year and five and a half months during the final year). More than 90% of the students opt for this program. Currently the program is running in collaboration with more than 150 industries and research labs.

7. Details of programmes discontinued, if any, with reasons: NIL

8. Examination System: Semester and Choice Based Credit System

9. Participation of the department in the courses offered by other departments

Bhagwat Geeta

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).

Designation	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	05	05
Associate Professors		02	02
Asst. Professors		10	09
Others		06	06
Off-Campus Faculty Data:			
Professor		-	-
Associate Professors		06	03
Asst. Professors		14	08
Others		19	11

Note**: The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience (Total)	No. of PhD/M.Phil. Students guided for the last 4 years
Rahul Banerjee	Ph.D.	Professor	Computer Networking, Wearable Computing and Pervasive / Ubiquitous Computing	25	5
J.P. Misra	M.E.	Professor	File System related Issues for Real time and Embedded Systems, Electronic System Design, Distributed Computer Control System	26	-

S. Balasubramaniam	M.S.	Professor	Distributed Computing and Service Oriented Architecture, Programming Language Theory & Formal Methods.	20	-
Navneet Goyal	Ph.D.	Professor	Data Mining, Databases & Data Warehousing, Online Algorithms, Business Intelligence for Higher Education	20	2
Sudeept Mohan	Ph.D.	Professor	Robotics and Control, Computer Architecture	24	2
Poonam Goyal	Ph.D.	Associate Professor	Data Mining, High Performance Computing, Information Retrieval, Image Retrieval	20	3
Mukesh Rohil	Ph.D.	Associate Professor	Multimedia Computing, Computer Graphics, Computer Vision, Image Processing, Geographical Information Systems	20	3
K. Hari Babu	Ph.D.	Asst. Professor	P2P Networks, Sybil Attacks	12	1
S. Raman	Ph.D.	Asst. Professor	Medical Image Analysis, Scientific Visualization	2.5	1
Yashvardhan Sharma	Ph.D.	Asst. Professor	OOAD in Software Engineering , Computer Programming, Indexing Techniques for Data Warehouses, Decision Support Systems	16	1
Virendra Singh Shekhawat	Ph.D.	Asst. Professor	Optical WDM Networks, Routing Algorithms and Protocols	12	1
SK Hafizul Islam	Ph.D.	Asst. Professor	Cryptography, Information/Network security	02	-
Vishal Gupta	Ph.D.	Asst. Professor	802.11 networks and Multi Criteria Decision Making techniques within the domain of Vertical Handover in 3G-WLAN Interworking environment. Ranking algorithms of search engines.	15	-
K. Venkatsubramanian	M.E.	Asst. Professor	Software Engineering	23	-
Abhishek Mishra	Ph.D.	Asst. Professor	Algorithms, Computational Complexity	3.4	-
Lavika Goel	Ph.D.	Asst. Professor	Nature inspired intelligence, algorithms, hybrid intelligence techniques, Soft Computing	1.5	-
Vandana Agarwal	M.Tech.	Lecturer	Face Recognition, Neural Network	17	-
Sunita Singhal	Ph.D.	Lecturer	Scheduling Algorithm in Distributed Environment	10	-
Avinash Gautam	M.E.	Lecturer	Cooperative robotics, distributed computing, distributed artificial intelligence	06	-
Asma Rani	M.Tech	Lecturer	Data Provenance, Information System Security	10	-
Mayuri Digalwar	M.E.	Lecturer	Operating System Scheduling Algorithms for uniprocessors and multi-core processors. Current Focus:	10.5	-

			Energy Aware Real Time Scheduling Algorithms for Uniprocessor Systems.		
Pankaj Vyas	Ph.D.	Visiting Faculty	Software quality improvement , Enhancement of Software Safety and Estimation of Software Reliability	18	-

* Submitted, pending defence

Off-campus Faculty Data

NAME	Qualification	Designation	Area of Specialization(s)	No. of Years of Experience in BITS in Yrs.	No. of PhD/M.Phil .Students guided for the last 4years
Vineet Garg	M.E.	Assistant Prof.	Computer Networks, Multimedia Computing, Network Security, Cryptography	18.5	
Vimal S P	M.E.	Lecturer	Machine Learning, Computer Vision, Compiler Design	9.5	
V Anand	M.E.	Lecturer	Computer networks, Digital electronics and microprocessor	7	
Ashish Narang	M.E.	Lecturer	Databases	3.5	
Swarna Chaudhary	M.Tech.	Lecturer	Software Engineering	4.5	
Ritu Arora	M.S.	Assistant Prof.	Software Engineering	7	
Rita Gopalan	M.S.	Lecturer	-	22	
Chandra Shekar R K	M.Tech.	Assistant Prof.	Computer Networks, Cloud Computing, Computer Architecture	16.5	
Nayan Khare	M.Tech.	Assistant Prof.	Service Oriented Architecture	11.5	
Anita Ramachandran	M.Tech.	Assistant Prof.	Telecommunications & Software Engineering	14	
Thunuguntla Venkateswara Rao	M.Tech.	Associate Prof.	Software Engineering, Project Management	25.5	
Koneru Gopala Krishna	M.Tech.	Associate Prof.	Software Project Management, Quality Management, Software Testing	30.5	
Viswanathan Hariharan	M.Tech.	Associate Prof.	Software engineering	30.5	
Preethi N G	M.Tech.	Lecturer	DBMS	8.5	
Mohammad Saleem J Bagewadi	M.Tech.	Lecturer	Cloud Computing, Software Testing	6.5	
Akanksha Bharadwaj	M.Tech.	Lecturer	Database	4.5	
Y V Krishna Ravi Kumar	Ph.D.	Assistant Prof.	Algorithms, Computer Graphics, Network Security	3.5	
Pradheep Kumar K	Ph.D.	Assistant Prof.	Operating Systems, Embedded Systems	11	
Ankur Pachauri	Ph.D.	Assistant Prof.	Evolutionary Algorithm, soft computing	5.5	
Uma Maheswari Natarajan	M.Sc. Tech.	Instructor	Database Systems	9	
B. Radhika	M.Sc.	Instructor	Operating Systems	10 Months	
Shailja Singhdev Sodhi	M.E.	Visiting Faculty	-	11	

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

None, at present

13. Percentage of classes taken by temporary faculty – programme-wise information

None.

Note for Off-Campus (WILP):

For the Work Integrated Learning Programmes (WILP) conducted in corporate partnership with several organizations, adequate number of suitably qualified professionals from the industry / academia are recruited as Guest Faculty and deployed for teaching courses as and when required.

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation) On Campus

M.E. (CS): 46/22 = 2.09:1
 M.E. (SS): 59/22 = 2.68: 1
 B.E. (Hons.) CS: 615/22 = 27.95: 1
 M.Sc.Tech (Hons.) IS: 136/22 = 6.18: 1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Academic Support Staff (Technical)		Administrative Staff	
Sanctioned	Filled / Actual	Sanctioned	Filled / Actual
01	01	-	3

16. Research thrust areas as recognized by major funding agencies

- High-Performance Computing (DEITY)
- Robotics (DRDO)
- Agent Technologies (UGC)
- Opinion Mining (DST)
- Computer Networking & Mobile Computing (DST-FIST)

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**Completed projects:**

Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
A Modeling and Design Framework for Social Networking Infrastructure on Mobile Devices using P2P overlays	S. Balasubramaniam	Aditya Birla Group - Science & Technology Center	10 Lakhs	18 months
Development of Framework for Multi-agent Robotic Systems	Sudeept Mohan	CAIR, DRDO	9.50 Lakhs	2 years
An Agent-Based Tool For Prediction, Analysis, Reporting And Dispensing of Climate Data	Yashvardhan Sharma	UGC	8.85 Lakhs	3 years

Ongoing projects:

Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
A New Distributed Computing Framework for Data Mining	Navneet Goyal	Dept. of Electronics and Information Technology	1.20 Crores	3 Years Nov. 2012- Nov.,2015
Design and Development of Opinion Mining Framework	Yashvardhan Sharma	DST	13.26 lakhs	3 years, July 2013 - June2016

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration: 01

A New Distributed Computing Framework for Data Mining	Navneet Goyal	Dept. of Electronics and Information Technology	1.20 Crores	3 Years
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b) International collaboration: NIL

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

2010-2011	Wireless Sensor Networking & Mobile Computing lab.	DST-FIST Level-I	50 Lakhs	5
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20. Research facility / centre with

- state recognition: None
- national recognition: None
- international recognition: None

Although the Department has following research laboratories, it has not sought any recognition for any agency so far. Three of these research laboratories have received substantial external funding.

S.No.	Name of Laboratories	Description
1.	The Multimedia and Human Computer Interaction Laboratory	The Laboratory is equipped with needed hardware and software for research in the areas of Multimedia Computing, Image Processing, Computer Vision, Augmented Reality, Medical Imaging, and Human Computer Interaction. Some of the research and experimental works undertaken in the lab are as follows: 1. Development of Image Registration methods suitable for Augmented Reality applications. 2. Development of sensors and Image Analysis methods for Food Safety 3. CUDA Programming for Image Feature Extraction and Image Similarity Analysis
2.	Advanced Data Analytics & Parallel Technologies Laboratory	The ADAPT (Advanced Data Analytics & Parallel Technologies) lab was set up to foster research in the area of Big Data Analytics. The main objective of ADAPT lab envisaged include designing and developing High Performance Computing Framework and Domain Specific Computing systems for Big Data Analytics. Another objective of the lab is to build programming models for contemporary parallel

		computing systems.
3.	Embedded Systems & Robotics Laboratory	The Robotics and Embedded Systems lab is currently involved in work related to design and implementation of different Pattern formation and Terrain exploration algorithms using multiple mobile robots. The algorithms use heterogeneous team of robots and can be used for different types of terrain. The Lab is equipped with robots of different sizes and capabilities besides different sensors which can be used for navigation, obstacle avoidance and map building. The Lab is also involved with work on design and implementation of different real time scheduling algorithms for embedded applications. These algorithms presently work in homogeneous environment and exploit the DVFS capability of processors for saving energy.
4.	Networking Research Laboratory	Networking Research Laboratory at the Department of Computer Science & Information Systems at BITS Pilani focus on the following key areas of research and development: Internet of Things / Cyber Physical Systems, Software Defined Networks, Mobile Ad-hoc Networks (including VANETs), Wireless Sensor Networks, Routing Algorithms and Wearable Computing. This laboratory has evolved from research and research-infrastructure augmentation funding by select international and national agencies as well as select corporate research laboratories like European Commission (under FP-5), Department of Science & Technology (GoI), Microsoft Research (Redmond), IBM (Bangalore) apart from Institute's own funding and some equipment gift from alumni of BITS Pilani. Its select student and faculty members have participated at several collaborative research projects involving multiple nations and organisations for over a decade's time. It has relevant hardware (computers, sensor-compute devices, development boards, test-equipment, mobile access routers, sensor-compute nodes, smartphones, PDAs, IP cameras (regular and PTZ), Biometric Smart card readers and cards, NFC devices, select sensors, Arduino and Galileo units and associated peripheral devices) as well as relevant software to support involved faculty and doctoral students as well as select Master's and Bachelor's students working on various ongoing research projects in the areas mentioned above.
5.	Web Intelligence & Social Computing Laboratory	Research interests of the lab are in development of new computing techniques/technologies for more efficient information and services utilization on the web. We focus on design and implementation of algorithms for web data mining and social computing that are re-usable and scalable across multiple application domains and big data. Our research topics include information retrieval, image/video retrieval, web analysis, text summarization, opinion mining, sentiment analysis etc.

21. Special research laboratories sponsored by / created by industry or corporate bodies:
None (within the assessment period). However, as of this writing, with help from Cisco Inc. a specialised set-up is being created at the Networking Research Laboratory in the area of Software Defined Networks.

22. Publications:

Sr. No.	Details	Nos.	Specify number here (number of journals, number of conferences)				
			2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1.	Number of papers published in peer reviewed journals (national / international)	40	4	7	6	16	7

2.	Number of papers published in peer reviewed conferences (national / international)	65	7	22	13	9	14
3.	Monographs		-	-	-	-	-
4.	Chapters in Books	2	1		1	-	-
5.	Edited Books		-	-	-	-	-
6.	Books with ISBN with details of publishers	-	-	-	-	-	-
7.	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	107	-	-	-	-	-
8.	Citation Index – range / average (within the assessment period).	Range: 5-373, Average: 65.285*					
9.	SNIP - range / average	Range: 0-3.242, Average: 1.25*					
10.	SJR - range / average	Range: 0-3.976, Average: 1.06*					
11.	Impact Factor – range / average	Range: 0-8.25, Average: 1.557*					
12.	h-index - range / average	Range: 1-10, Average: 3.285*					

* **Note:** Computed on the basis of the data obtained from only existing faculty colleagues for the referred assessment period. This data would have been on the higher side had we included data pertaining to those faculty members who were with us during this period (2010-2015) but are no longer with us. (Similarly, we have not included past data pertaining to publications of two faculty members who joined us recently.)

Details of the publications as per the number give above (Give details in the last five years:

Sr. No	Authors	Title of the Publications	Details of the Journal Including VOL NO, ISSUE NO, PAGE NO.	National/International	Year
1.	Nirmal Gupta and Mukesh Rohil	An Approach for Detection and Correction of Design Defects in Object Oriented Software	International journal of Information Technology & Knowledge Management, Vol 4, pg.no. 63-67	International	2010-2011
2.	Praveen Ranjan Srivastava	Performance Analysis of Tier-Based Multimodal Biometrics Involving the Human Ear	International journal of biometrics, Vol 3, pg.no. 13-39	International	2010-2011
3.	Praveen Ranjan Srivastava	Integrated Software Quality Evaluation: A Fuzzy Multi-Criteria Approach	Journal of Information Processing System (JIPS), Vol 7, pg.no. 473-518	International	2010-2011
4.	Sunita Bansal, and Chittaranjan Hota	Efficient Refinery Scheduling Heuristics in Heterogeneous Computing Systems	Journal of Advances in Information technology, Vol 2, pg.no 159-164	International	2010-2011
5.	Vishal Gupta and Mukesh Rohil	Bit. Stuffing in 802.11 Beacon Frame: Embedding non Standard Custom Information	International Journal of Mobile and Adhoc Network, Vol 2, pg.no 106-110	International	2012-2013

6.	Vishal Gupta and Mukesh Rohil	Enhancing wi-fi with ieee802.11u for mobile data offloading	International Journal of Mobile Network Communications and Telematics (IJMNCT), Vol 2, pg.no 19-29	International	2011-2012
7.	Yashvardhan Sharma and Dinesh Saini	Soft Computing Particle Swarm Optimization based Approach for Class Responsibility Assignment Problem	International Journal of Computer Applications, Vol 40, pg. no 19-24	International	2011-2012
8.	K Haribabu, C Hota and Arindam Paul	GAUR: a method to detect Sybil groups in peer-to-peer overlays, Int. J. Grid and Utility Computing	Inderscience Publications, Vol 3, pg.no 145-156	International	2011-2012
9.	Nirmal Kumar Gupta, Mukesh Kumar Rohil	Measuring Maintenance Effort in Object Oriented Software with Indirect Coupling	International journal of Computer Applications, Vol 54, pg.no. 19-24	International	2011-2012
10.	Virendra Singh Shekhawat, Amrit Kumar Saini and V K Chaubey	Efficient Heuristic Algorithms for Routing and Wavelength Assignment in Optical WDM Networks	IUP Journal of Telecommunications Vol. IV, No. , pp. 31-43	International	2011-2012
11.	Virendra Singh Shekhawat, D K Tyagi and V K Chaubey	Design and Characterization of a Modified WDM Ring Network - An Analytical Approach	Optik- International Journal for Light and Electron Optics, Elsevier, Vol. 123, Issue 12, pp. 1103-1107	International	2011-2012
12.	Hafizul Islam, G. P. Biswas and K.K-R Choo	Cryptanalysis of an Improved Smartcard-based Remote Password Authentication Scheme	Information Sciences Letters - An International Journal (Natural Sciences Publishing), Vol 3 , issue 1, 35 - 40	International	2012-2013
13.	Pankaj Vyas and RK Mittal	Hazard analysis of Unified Modelling Language sequence and state charts using software fault tree analysis	International Journal of Critical Computer Based Systems (IJCCBS), Inderscience Publishers, Vol 4, issue 2, 173-197	International	2012-2013
14.	Poonam Goyal, N. Mehala and A Bansal	A robust approach for finding conceptually related queries using feature selection and tripartite graph structure	Journal of Information Science, Vol 39, issue 5, pg. no.575-592	International	2012-2013
15.	Murali Parameswaran and Chittaranjan Hota	Sector Based Multicast Routing Algorithm For Mobile Ad-Hoc Networks	International Journal of Wireless & Mobile Networks (IJWMN), Vol 5, issue 5, pg.no. 49--63	International	2012-2013
16.	Rahul Banerjee, Sailesh Conjeti, Rajiv Ranjan Singh	A Comparative Evaluation of Neural Network Classifiers for Stress Level Analysis of Automotive Drivers using Physiological Signals	An international Journal of Biomedical Signal Processing & Control (Elsevier B V), Vol 8, pg. no740-754	International	2012-2013
17.	Rahul Banerjee, Prasanta Bhattacharya, Hajela Ruchir	Project Communicate, Universal Access in Human-Computer	International Journal of Lecture Notes in Computer Science, Springer-Verlag, Vol 80, issue 10, pg. no. 494-503	International	2012-2013

18.	SK Hafizul Islam	Design and analysis of an improved smartcard based remote user password authentication scheme	International Journal of Communication Systems (Wiley) [SCIE], , Vol 0, No. 0	International	2013-2014
19.	SK Hafizul Islam	Provably secure dynamic identity-based three-factor password authentication scheme using extended chaotic maps	Nonlinear Dynamics (Springer)[SCIE], vol. 78, no. 3, pp. 2261-2276	International	2013-2014
20.	SK Hafizul Islam	A provably secure ID-based mutual authentication and key agreement scheme for mobile multi-server environment without ESL attack	Wireless Personal Communications (Springer)[SCIE], no. 79, pp. 1975-1991	International	2013-2014
21.	SK Hafizul Islam, M.K. Khan	Provably secure and pairing-free identity-based handover authentication protocol for wireless mobile networks	International Journal of Communication Systems (Wiley) [SCIE], Vol 0, No. 0	International	2013-2014
22.	SK Hafizul Islam, M.K. Khan	Cryptanalysis and Improvement of Authentication and Key Agreement Protocols for Telecare Medicine Information Systems	Journal of Medical Systems (Springer)[SCIE], , 38, 115, pp 0-0	International	2013-2014
23.	SK Hafizul Islam, M.K. Khan, A.M. Al-Khouri	Anonymous and provably secure certificateless multireceiver encryption without bilinear pairing	Security and Communication Networks (Wiley) [SCIE], Vol 0, No. 0	International	2013-2014
24.	SK Hafizul Islam, G. P. Biswas	Dynamic ID-based remote user authentication scheme with smartcard using elliptic curve cryptography	Journal of Electronics (Springer) [SCOPUS], Volume 31, Issue 5, pp 473-488	International	2013-2014
25.	SK Hafizul Islam, G. P. Biswas	Certificateless short sequential and broadcast multisignature schemes using elliptic curve bilinear pairings	Journal of King Saud University - Computer and Information Sciences (Elsevier), Volume 26, Issue 1, January 2014, Pages 89–97	International	2013-2014
26.	SK Hafizul Islam, G. P. Biswas	Cryptanalysis and improvement of a password-based user authentication scheme for the integrated EPR information system	Journal of King Saud University – Computer and Information Sciences (Elsevier), Volume 27, Issue 2, April 2015, Pages 211–221	International	2013-2014
27.	SK Hafizul Islam, F. Li	Leakage-free and provably secure certificateless signcryption scheme using bilinear pairings	The Computer Journal [SCIE], OXFORD University Press, The British Computer Society, Vol 0, No. 0	International	2013-2014
28.	Sunita Bansal, Chittaranjan Hota	Hybrid Multi-objective WorkFlow Scheduling on Utility Grids	INFOCOMP Journal of Computer Science, Brazil, Volume 13, Number 1, pp. 12 - 20,	International	2013-2014
29.	Sunita Bansal, Chittaranjan Hota	Distributed Scheduling on Utility Grids	Romanian Journal of Information Science and	International	2013-2014

			Technology (SCI Expanded), Volume 16, Number 4, pp. 373 - 392,		
30.	Rajiv Ranjan Singh, Rahul Banerjee, Sailesh Conjeti	A Comparative Evaluation of Neural Network Classifiers for Stress Level Analysis of Automotive Drivers using Physiological Signals	International journal of Biomedical Signal Processing & Control (BSPC), Elsevier	International	2013-2014
31.	Ruchir Hajela, Prasanta Bhattacharya, Rahul Banerjee	Project Communicate, Universal Access in Human-Computer Interaction. User and Context Diversity	Lecture Notes in Computer Science, Volume 8010, 2013, pp 494-503.	International	2013-2014
32.	Yashvardhan Sharma, Saurabh Verma, Sumit Kumar, Shivam U.	A Context-Based Performance Enhancement Algorithm for Columnar Storage in MapReduce with Hive	International Journal of Cloud Applications and Computing, Volume 3, No. 4	International	2013-2014
33.	Lavika Goel, Daya Gupta, V.K. Panchal	Two-phase Anticipatory System Design Based on Extended Species Abundance Model of Biogeography for Intelligent Battlefield Preparation	Knowledge Based Systems, Elsevier Publications, 2015. (In Press)	International	2015
34.	SK Hafizul Islam	Design and analysis of a three party password-based authenticated key exchange protocol using extended chaotic maps	Information Sciences, , vol. 312, pp. 104-130	International	2015
35.	SK Hafizul Islam, Abhishek Singh	Provably secure one-round certificateless authenticated group key agreement protocol for secure communications	Wireless Personal Communications, no. 79, pp. 1975-1991	International	2015
36.	SK Hafizul Islam, M. S. Farash, G. P. Biswas, M. K. Khan, M. S. Obaidat	A pairing-free certificateless digital multisignature scheme using elliptic curve cryptography	International Journal of Computer Mathematics	International	2015
37.	Poonam Goyal, N. Mehala, and Navneet Goyal	Incremental Models for Query Clustering and Query-Context Aware Document Clustering	Int. J of knowledge and Web Intelligence (Accepted)	International	2015
38.	Pankaj Vyas, RK Mittal	The applications of SFTA and SFMEA approaches during software development process: an analytical review	International Journal of Critical Computer-Based Systems (IJCCBS), Vol.6, No.1, pp.29-49	International	2015
39.	A. Mishra, P.K. Mishra	A Randomized Scheduling Algorithm for Multiprocessor Environments using Local Search	accepted for publication in Parallel Processing Letters,(2015)	International Journal	2015
40.	SK Hafizul Islam, G. P. Biswas	Design of Improved Password Authentication and Update Scheme based on Elliptic Curve	Mathematical and Computer Modelling, vol. 57, no. 11-12, pp. 2703-2717	International Journal	2013

		Cryptography			
41.	SK Hafizul Islam, G. P. Biswas	A more efficient and secure ID-based remote mutual authentication with key agreement scheme for mobile devices on elliptic curve cryptosystem	Journal of Systems and Software, vol. 84, no. 11, pp. 1892-1898	International Journal	2011
42.	SK Hafizul Islam, G. P. Biswas	A pairing-free identity-based authenticated group key agreement protocol for imbalanced mobile network	Annals of Telecommunications, vol. 67, no. 11-12, pp. 547-558	International Journal	2012

List of Books Published by Faculty:

Name of Faculty (Author)	Title of the Book	Publisher and Year
Rahul Banerjee*	Internetworking Technologies	Prentice-Hall of India, New Delhi, 2003, reprint: 2015.
Rahul Banerjee*	Architecture and Conceptual Design of the Unix™ System	Khanna Publishers, New Delhi (India), 1993.

* Note: These books were originally published prior to the 2010-2015 period.

List of Book Chapters by Faculty:

Authors	Title of the Book Chapter	Publisher and Year
Ruchir Hajela, Prasanta Bhattacharya, Rahul Banerjee:	Project Communicate, in Universal Access in "Human-Computer Interaction, User and Context Diversity"	Lecture Notes in Computer Science (LNCS), Springer-Verlag, Volume 8010, 2013, pp 494-503. <ISBN 978-3-642-39190-3>
Arpit Agarwal, Rahul Banerjee, Varun Pandey, Riya Charaya	An Optimal Human Adaptive Algorithm to find Action- Reaction Word-pairs	Communications in Computer and Information Science (CCIS), Springer-Verlag, Volume 173, pp. 255-259. <ISBN 978-3-642-22097-5>

(B) Details of the Conference publications as per the number give above:

S.No.	Authors	Title of the Publications	Details of the Conference	National/International	Year
1.	Navneet Goyal, Poonam Goyal, Mayank P Mohta, Aman Neelappa, and K Venkatramaiah	A Multi-purpose Density based Clustering Framework"	4th International Conference on Contemporary Computing, 6th-8th Aug, 2011, Noida, India.	International	2010-2011
2.	Ankit Chaudhary, J.L. Raheja, K. Das	A Vision based Real Time System to Control Remote Robotic Hand Fingers	IEEE-ICCCA, 2011, Jeju Island, South Korea	International	2010-2011
3.	Arpit Agarwal, Rahul Banerjee, Varun Pandey, Riya Charaya	An Optimal Human Adaptive Algorithm to find Action- Reaction Word-pairs	International Conference on Communications in Computer and Information Science, Orlando, USA	International	2010-2011
4.	K Haribabu, Arindam Paul, Chittaranjan Hota	Detecting Sybils in Peer-to-Peer Overlays using Psychometric Analysis Methods	IEEE-WAINA-2011, Singapore	International	2010-2011
5.	Poonam Goyal, Navneet Goyal, Rohan S Karwa and	Phase-wise Clustering of Time Series Gene Expression Data	IEEE-FCST-2011, Changshai, China	International	2010-2011

	Mathew John				
6.	Poonam Goyal and Mehala, N	Concept Based Query Recommendation	ACM-AusDM 11, Ballarat, Australia	International	2010-2011
7.	Rajiv Ranjan Singh, Sailesh Conjeti & Rahul Banerjee	An Approach for Real-Time Stress-Trend Detection in Physiological Signals in Wearable Computing Systems for Automotive Drivers	IEEE-ITSC 2011, George Washington University, Washington, DC, USA	International	2010-2011
8.	Swati Keskar & Rahul Banerjee	<u>A Time-Recurrent HMM Decision Tree to Generate Alerts for Heart-Guard Wearable Computer</u>	IEEE-CinC 2011, Hangzhou, China	International	2010-2011
9.	Sailesh Conjeti, Rahul Banerjee, Rajiv Ranjan Singh	Bio-Inspired Wearable Computing Architecture and Physiological Signal Processing for On-Road Stress Monitoring	IEEE-EMBS International Conference on Bio-medical and Health Informatics, Hong Kong China	International	2011-2012
10.	Swati P. Keskar, Rahul Banerjee, Rajkiran Reddy	A Dual PSoC based Reconfigurable Wearable Computing Framework for ECG Monitoring	International Conference on Computing in Cardiology (CinC 2012) USA	International	2011-2012
11.	Yashvardhan Sharma, Arindam Paul, Varuni Ganesan, Jagat Sesh Challa	HADCLEAN: A Hybrid Approach to Data Cleaning in Data Warehouses	21 st IEEE, International Conference on Information Retrieval and Knowledge Management, Kuala Lumpur, Malaysia	International	2011-2012
12.	Yashvardhan Sharma, Raghav Nasri and Kumar Askand	Building a Data Warehousing Infrastructure based on Service Oriented Architecture	IEEE, International Conference on Cloud Computing Technologies, Applications and Management BITS-Pilani, Dubai Campus, Dubai, UAE.	International	2011-2012
13.	Gupta Vishal and Rohil Mukesh	An Experimental Measurement of Contradictory Judgement Matrices in AHP	2 nd IEEE International Conference on Parallel, Distributed and Grid Computing, JUIT, Wanknaghat, Solan	International	2011-2012
14.	Gupta Vishal and Rohil Mukesh	Information Embedding in IEEE 802.11 Beacon Frame	7th National Conference on Communication Technologies and its impact on Next Generation Computing CTNGC 2012	National	2011-2012
15.	Gupta Vishal and Swaroop Shanti	Handover Procedure using Probability Based Mobility Patterns in 3G-WLAN Interworking Environment	Recent Advances in Computing and Software Systems (RACSS), SSN College of Engineering, Chennai	National	2011-2012
16.	Kumar Suneel	A knowledge Acquisition System for a University Educational Process	7 th IEEE ICIS 2012, IIT Chennai	International	2011-2012
17.	Singh Rajiv Ranjan, Banerjee Rahul, K Sailesh	Bio-signal Based On-road Stress Monitoring for Automotive Drivers	18 th National Conference on Communications, Joint Telematics Group of IITs and IISc, IIT Kharagpur, IT	National	2011-2012

			Kharagpur, Kharagpur, India		
18.	Rohil Mukesh Kumar	A Fuzzy Logic Based Model for Analysis of a Research Design for its, Suitability to Avoid Non-Sampling Errors in Market Research	2 nd International Conference on Bussiness Analytics, Great Lakes Institute of Management, Manamai Village, Tamilnadu	Internationa l	2011- 2012
19.	Vyas Pankaj, Mittal Ravi Kant	Eliciting Additional Safety Requirements from Use-Cases Using SFTA	RAIT-2012, ISM, DHANBAD	Internationa l	2011- 2012
20.	Gupta Nirmal Kumar, Rohil Mukesh Kumar	Exploring Possibilities of Reducing Maintenance Effort in Object Oriented Software by Minimizing Indirect Coupling	2 nd International Conference on Computer Science, Engineering and Applications, New Delhi, India	Internationa l	2011- 2012
21.	Gupta Nirmal Kumar and Rohil Mukesh Kumar,	5 th Object Oriented Software Maintenance in presence of Indirect Coupling	International Conference on Contemporary Computing, ,Noida, India	Internationa l	2011- 2012
22.	Gupta Nirmal Kumar and Rohil Mukesh Kumar	Software Quality Measurement for Reusability	International Conference on Software Engineering and Mobile Application Modelling and Development, S Abdur Rahman University Chennai, India	Internationa l	2011- 2012
23.	D.C. Kiran, Gurunaryanan S. and Misra J.P	An Efficient Method to Compute Static Single Assignment Form for Multicore Architecture	RAIT 2012, ISM, Dhanbad	Internationa l	2011- 2012
24.	Virendra Singh Shekhawat, Sirish Kumar, V K Chaubey	A Novel Multi-path Data Transmission Algorithm for Wavelength Routed Optical WDM Networks	ICETECT 2011, Kanyakumari, India, IEEE,	Internationa l	2011- 2012
25.	Virendra Singh Shekhawat, Ohmkar K, V K Chaubey,	A Wavelength Intersection Cardinality Based Routing and Wavelength Assignment Algorithm in Optical WDM Networks	ICCCS'11, Rourkela, Odisha, India	Internationa l	2011- 2012
26.	D.C. Kiran, Gurunaryanan S. and Misra J.P	Compiler Driven Inter Block Parallelism for Multicore Architecutre	6 th ICIP 2012 , UVCE, Bangalore	Internationa l	2011- 2012
27.	D C Kiran, S. Gurunaryanan and Misra J.P	Compiler Efficient and Power Aware Instructio Level Parallelism for Multicore Architecture	1 st ICECCS, RSET, Cochin	Internationa l	2011- 2012
28.	Goyal Poonam, Mehala N and Thakkar Dipen	Incremental model for query clustering	fire 2012, ISI KOLKATA	Internationa l	2011- 2012
29.	Agarwal Vandana and Bhanot Surekha,	A Dynamic Data Structure for Real Time Face Recognition	International Conference on Computer Technology and Science (ICCTS),	Internationa l	2011- 2012
30.	Gautam Avinash, Mohan Sudeept, Misra J.P	A Practical Framework for Circle Formation by Multiple Mobile Robots	7 th ICIS 2012, , IIT Madras, Chennai	Internationa l	2011- 2012
31.	Gautam Avinash, Mohan Sudeept	A review of research in multi-robot systems	7 th ICIS 2012, , IIT Madras, Chennai	Internationa l	2011- 2012
32.	Dinesh Kumar Tyagi,	"Resource Efficient	Advances in Computing,	Internationa	2012-

	Virendra Shekhawat, S V K Chaubey,	Survivability Approach for Resilient WDM Optical Networks",	Communications and Informatics (ICACCI-2012), Chennai, India	I	2013
33.	Murali Parameswaran, C. Hota	Arbitration-based Reliable Distributed Mutual Exclusion for Mobile Ad-hoc Networks, Modeling and Optimization in Mobile	11 th International Symposium and Workshops on Ad Hoc and Wireless Networks (WiOpt), Tsukuba	International	2012-2013
34.	Murali Parameswaran, V. Rastogi and C. Hota	A Virtual-Force Based Multicast Routing Algorithm for Mobile Ad-hoc Networks	5 th International Conference on Ubiquitous and Future Networks 2013 (ICUFN) , Da Nang	International	2012-2013
35.	K. Manjusha, Shabas, S; Banerjee, Rahul	An Efficient Method of Spam Classification by Multi-class Support Vector Machine Classifier Interaction, User and Context Diversity	7 th International Conference on Data Mining and Warehousing, , Bengaluru, India	International	2012-2013
36.	Sundaresan Raman, Pecot Thierry, Singh Shantanu, Caserta Enrico, Leone Gustavo, Huang Kun and Machiraju Raghu	Robust Reconstruction of Tubular Structures in Tissue Microenvironment, Pattern Recognition and Image Analysis	Russian Academy of Sciences, RAS, Samarskiy Samara, Russia	International	2012-2013
37.	Mayuri A. Digalwar, Sudeept Mohan and Biju Raveendran	Dynamic Voltage and Frequency Scaling Algorithm for Mixed Task Set	8 th IEEE International Conference on Industrial and Information Systems (ICIIS-2013), Kandy, SriLanka	International	2012-2013
38.	Yashvardhan Sharma	Building a Data Warehousing Infrastructure based on Service Oriented Architecture	1 st International Conference on Cloud Computing Technologies, Applications and Management, BITS-Pilani, Dubai Campus, Dubai UAE	International	2012-2013
39.	Nirmal Kumar Gupta and Mukesh Kumar Rohil	Improving GA based Automated Test Data Generation Technique for Object Oriented Software	3 rd IEEE International Advance Computing Conference, Ajay Kumar Garg Engineering College, Ghaziabad	International	2012-2013
40.	Sunil Thalia and Asma Tuteja	Comparative performance analysis of information system security using crisp and fuzzy AHP methods	3 rd Advanced Computing Conference, , Ajay Kumar Garg Engineering College, Ghaziabad	International	2012-2013
41.	Vandana Agarwal and Surekha Bhanot	Firefly Inspired Center Initialization of Radial Basis Function Neural Network for Face Recognition	IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT, Kanpur	International	2012-2013
42.	Avinash Gautam, Sudeept Mohan, Virender Shekhawat	A Token Passing Approach for Circle Formation by Multiple Mobile Robots	6 th International Conference on Contemporary Computing (IC3), IIIT Noida, India	International	2012-2013
43.	Mayuri A. Digalwar, Sudeept Mohan and Biju Raveendran	Energy Aware Real Time Scheduling Algorithm for Mixed Task Set	ICAES International Conference on Advanced Electronic Systems, CSIR-CEERI, Pilani (India).	International	2012-2013

44.	Avinash Gautam, Sudeept Mohan	A Distributed Algorithm for Circle Formation By Multiple Mobile Robots	1 st International Conference on Control, Automation, Robotics and Embedded Systems (CARE), , IIITDM Jabalpur	International	2012-2013
45.	Vandana Agarwal and Surekha Bhanot	Evolutionary Design of Multiquadric Radial Basis Functions Neural Network for Face Recognition	4 th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), IIT, Jodhpur	National	2012-2013
46.	D. Bhatia, V.K. Choudhary, Y. Sharma	TwBiNG: A Bipartite News Generator Using Twitter	Proceedings of SNOW 2014 Data Challenge	International	2013-2014
47.	Rani Asma, Thalia Sunil	Knowledge driven decision support system for provenance models in relational database	2 nd IEEE International Conference on Data Science and Engineering (ICDSE), Cochin University of Science & Technology, Kochi, India	International	2014-2015
48.	Gautam Avinash, Apoorv Umang, Mall Prerak, Mohan Sudeept	Positioning Multiple Mobile Robots for Geometric Pattern Formation: An Emperical Analysis	7 th International Conference on Contemporary Computing (IC3), IIIT Noida, India	International	2013-2014
49.	Manjusha, K; Shabas, S; Banerjee, Rahul	An Efficient Method of Spam Classification by Multi-class Support Vector Machine Classifier	7 th International Conference on Data Mining and Warehousing Bangalore	International	2013-2014
50.	K Haribabu, and Hota Chittaranjan	Analysis of Floating Index Caching Technique for P2P Overlay Index Propagation	16 th International Conference on Distributed Computing and Networking, Goa, India	International	2014-2015
51.	Mehala N, Bhatia Divyansh and Goyal Poonam	An Approach for Search Result Topic Identification and Labeling	2 nd Conference on Data Sciences, ACM SIGKDD	International	2013-2014
52.	Digalwar Mayuri, Gahukar Pravin and Mohan Sudeept	Design and Development of a Real Time Scheduling Algorithm for Mixed Task Set on Multi-core Processors	7 th International Conference on Contemporary Computing. IIIT, Noida, India	International	2013-2014
53.	Mishra M. K., Islam SK Hafizul, Biswas G. P	Design of ECC-based ElGamal Encryption Scheme using CL-PKC	International Conference in Recent Advances in Information Technology (RAIT 2014)	International	2013-2014
54.	Goyal Poonam Goyal, Kumari Sonal, Kumar Dhruv, Balasubramaniam Sundar, Goyal Navneet	Parallelizing OPTICS for Multicore System	7 th ACM Compute Conference, Nagpur, India	International	2013-2014
55.	K Haribabu, and Chittaranjan Hota	Analysis of Floating Index Caching Technique for P2P Overlay Index Propagation	16 th International Conference on Distributed Computing and Networking (ICDCN 2015)	International	2014-2015
56.	Lavika Goel	A 2D Illumination Based Adaptive Gaze Tracking Approach for Varied Head Orientations	2 nd International Conference on Computing for Sustainable Global Development (INDIACOM),	International	2014-2015

			IEEE Xplore, IEEE Publications held at Bharti Vidyapeeth, New Delhi		
57.	Avinash Gautam	Cluster, Allocate, Cover: An Efficient Approach for Multi-Robot Coverage	International Conference on Systems, Man, and Cybernetics (SMC 2015) to held in Hong Kong, China [Scopus Indexed, h5-Index = 22]	International	2014-2015
58.	Vandana Agarwal and Surekha Bhanot	Firefly Inspired Feature Selection for Face Recognition	8 th International Conference on Contemporary Computing (IC3-2015) held at IIIT, Noida, India, 20-22 August 2015.[SCOPUS indexed , h5-index =10] (Presented)	International	2014-2015
59.	A. Mishra, P.K. Mishra	A Randomized Scheduling Algorithm for Multiprocessor Environments using Local Search	Parallel Processing Letters	International	2014-2015
60.	R. Sharma, B. Adhikari, A. Mishra	On Spectra of Corona Graphs	Conference on Algorithms and Discrete Applied Mathematics, Lecture Notes in Computer Science, Volume 8959, pp 126--137	International	2014-2015
61.	Amit Bisaria, Virendra S Shekhawat, V K Chaubey	Heuristic Algorithms for Routing and Wavelength Assignment (RWA) Planning Algorithms in Optical WDM Networks	International Conference on Telecommunication Technology and Management (ICTTM-2015), IIT Delhi, India, April 2015	International	2014-2015
62.	Rupal Bhargava, Yashvardhan Sharma	User Modeled Aspect Based Sentiment Analysis	National Conference on Emerging Trends of Research in Applied Sciences, Experimental and Computational Techniques, IJERT, February 2015, Pp 21-24.	National	2014-2015
63.	Rupal Bhargava, Yashvardhan Sharma	Analyzing Sentiments through Text Summarization	International Conference on Evidence Based Management	International	2014-2015
64.	N. Mehala, Divyansh Bhatia, and Poonam Goyal	An Approach for Search Result Topic Identification and Labeling	2 nd IKDD conference on Data Sciences (CODS '15), Mar 18-21, 2015, Bangalore, India		2014-2015
65.	Poonam Goyal, Sonal Kumari, Dhruv Kumar, Sundar Balasubramaniam, Navneet Goyal, Saiyedul Islam and Jagat Sesh Challa	Parallelizing OPTICS for Commodity Clusters	16 th International Conference on Distributing Computing and Networking (ICDCN'15), January 2015, Goa, India	International	2014-2015
66.	Mayuri Digalwar, Praveen Gahukar, Sudeept Mohan, Biju K. Raveendran	STREAM: A Simulation Tool for Energy Efficient Real Time Scheduling and Analysis	6 th International Workshop on Analysis Tools and Methodologies for Embedded and Real Time Systems (WATERS 2015), Lund, Sweden, July 32015	International	2014-2015

67.	Yashvardhan Sharma, D. Bhatia	Near Real Time Data Warehouse with Priority Updates	2 nd Workshop on Smarter Planet and Big Data Analytics, 16th International Conference on Distributed Computing and Networking (ICDCN 2015)	International	2015
68.	Yashvardhan Sharma, Mayank Garg, Ekansh Mittal	Political Opinion Mining from Twitter	International Conference on Evidence Based Management 2015 (ICEBM 2015)	International	2015

23. Details of patents and income generated

Patents: No new patent granted

Income Generated with respect to Patents: Not Applicable

24. Areas of consultancy and income generated

During the assessment period, no paid consultancy was provided by the department.

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

Sr. No.	Name of Faculty	Name of the National / Int. Lab /Inst. / Industry	Area of Research
1	Poonam Goyal	Carleton University, Ottawa, CANADA	Parallelization of Data Mining Algorithms Concurrent & Distributed Data Structures
2	Yashvardhan Sharma	Oregon State University, Corvallis, US Department : School of Electrical Engineering and Computer Science	Machine Learning for Sentiment Analysis
3	Vishal Gupta	Blue Jeans Networks, Bangalore	802.11 networks and Multi Criteria Decision Making techniques within the domain of Vertical Handover in 3G-WLAN Interworking environment. Ranking algorithms of search engines.
4	Virendra Singh Shekhawat	Blue Jeans Networks, Bangalore	Optical WDM Networks, Routing Algorithms and Protocols

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other

Name of Faculty	Name of the National / Int. Committee / Journal & Editorial Association/Keynote Lectures/Invited Lectures/Session Chair, Board Member / Advisor Board Member to Organisations
Rahul Banerjee	Member of Editorial Board: International Journal of Computer Networking & Distributed Systems, Member: IEEE Technical Committees (four) Member of Advisory Board: Harva Foundation External Member: Academic Council, DIT University, Dehradun Reviewer: IEEE Transaction on Computers, IEEE Transactions on ITS
K Haribabu	Reviewer: National conference on Communications (NCC), Information Systems Frontiers
Navneet Goyal	Reviewer: ACM Compute 2013
Poonam Goyal	Reviewer: Computers in Biology and Medicine –Elsevier
SK Hafizul Islam	Area Editor: International Journal of Communication Systems
Vandana Agarwal	Reviewer: CSIT(Springer)
J P Misra	Senate Member: IIIT Kota
Avinash Gautam	Reviewer: Journal of Intelligent Robotic Systems – Springer, Arabian Journal for Science and

	Engineering – Springer, IEEE International Conference on Signal Propagation and Computer Technology, IEEE International Conference on Signal Processing, Computing and Control, IEEE International Conference on Signal Processing and Integrated Networks Geometric Pattern Formation by Multiple Mobile Robots Algorithm, India-HU Workshop for Sensing & Robotics (HiSENS).
Mukesh Kumar Rohil	Reviewer: IEEE Transactions on Geoscience and Remote Sensing
Pankaj Vyas	Reviewer: International Journal of Software Engineering, Technology and Applications (Inderscience Publishers)
Shan Balasubramaniam	Reviewer: ICIT

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Sr. No.	Name of Faculty	Duration of Grant	Name and Venue of the UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs
1	Dr. Sundaresan Raman	Two Years	Research Initiation Grant: Sectioned Amount Rs.2 Lakhs Title of the Project: "Food Sense: A Framework for Safe Storage, Preparation and Delivery of Food"
2	Dr. K. Haribabu	Two Years	Additional Competitive Research Grant for New Faculty: Sectioned Amount Rs.8.2 Lakhs Title of the Project: Investigations into issues in Deploying Software Defined Networks on Traditional Network Infrastructure

28. Student projects:

- percentage of students who have done in-house projects including inter-departmental projects:

The Institute offers several project oriented courses like Study Projects, Laboratory Projects, Design Projects, TIC Projects etc. through which almost 100% of admitted First Degree students participate in departmental or cross-departmental projects.

- percentage of students doing projects in collaboration with other universities /industry / institute:

As part of the curriculum structure, the Institute offers industrial internship opportunities through its Practice School programme wherein a First Degree student spends close to seven and a half months' time (2 months for PS-1 at the end of Second Year and five and a half months in the Final Year) at a chosen industry / research laboratory etc. More than 90% of admitted students exercise these options. Higher Degree students too have this option for five and a half month long industrial internship. More than 90% of admitted students exercise these options.

29. Awards / recognitions received at the national and international level by Faculty Doctoral /Post-Doctoral fellows Students

Name of the Faculty /PhD Scholar/Student	Name of Award / Fellowship / Recognition
Prof. Navneet Goyal and Prof Poonam Goyal	IBM Scalable Data Analytics Innovation Award 2010. The award is for the concept titled "Developing a Smart Crop Management System using Data Analytics" and carries a cash prize of \$ 15,000 USD, 2010.

K Haribabu	DST Int. Travel Grant, 2011.
Prof Poonam Goyal	Recognition of women in Data Mining Citation in <i>9th Australasian Data Mining Conference (AusDM '11)</i> , Ballarat, Australia, 2011.
Ms. Vandana Agarwal	Best Presentation Award: IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, 2013.
Avinash Gautam	Selected to attend: SAKURA Science program on high speed vision processing for robotics (fully sponsored) at Hiroshima University, Japan. (20 days), 2015.

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

Name of the Event	Faculty	Source of Funding
Workshop on Design of heuristic based controllers for power plant application(21 st Oct. 2013 to 26 th Oct. 2013)	Conducted by Prof. J P Misra	NTPC
Organized a four day workshop (27 th April, 2011 to 30 th April, 2011) on IBM Rational Suite Enterprise (RSE) and Rational Software Architect (RSA) tools for the faculty members of department of computer science and information systems. The workshop is conducted by a team of experts from WebTek Labs Pvt. Ltd, New Delhi.	Conducted by Dr. Pankaj Vyas	IBM India
Indo- Chile Workshop on Big Data (4 th June 2014 to 6 th June 2014)	Conducted by Dr. Navneet Goyal, Dr. Poonam Goyal & Prof. S. Balasubramaniam	DST
International Workshop on Data Analytics & Application	Conducted by Dr. Navneet Goyal, Dr. Poonam Goyal & Prof. S. Balasubramaniam	Internal

31. Code of ethics of research followed by the Department.

The Department follows the ethical standards and policies of the Institute. These are detailed in the SSR.

32. Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Academic Session	Applications received	Selected		Pass percentage	
			Male	Female	Male	Female
B.E.(Hons.) Computer Science	2010-2011	139234	77	13	100%	100%
	2011-2012	97257	77	13	100%	100%
	2012-2013	114998	75	14	100%	100%
	2013-2014	139309	116	14	100%	100%
	2014-2015	186181	110	14	100%	100%
M.E. Computer Science	2010-2011	4428	23	6	100%	100%
	2011-2012	4571	14	4	100%	100%
	2012-2013	4825	14	4	100%	100%
	2013-2014	5549	17	3	100%	100%
	2014-2015	5172	11	13	100%	100%
M.E. Software Systems	2010-2011	4428	21	9	100%	100%
	2011-2012	4571	19	4	100%	100%
	2012-2013	4825	19	5	100%	100%
	2013-2014	5549	24	5	100%	100%

	2014-2015	5172	20	5	100%	100%
M.Sc.(Tech.) Information Systems	2010-2011	139234	40	20	100%	100%
	2011-2012	97257	54	17	100%	100%
	2012-2013	114998	49	10	100%	100%

WILPD Data:

Degree	Name of the Programme	Application Received	Selected Male	Selected Female	Pass % Male	Pass % Female
B.S.	Information Systems	474*	361	113	100	100
B.Tech.	Information Systems	175*	137	38	100	100
M.S.	Software Engineering	2903*	2153	750	100	100
M.Tech.	Software Engineering	670*	492	178	100	100
M.S.	Software Engineering (8 Semesters)	10434*	4574	5860	100	100
M.Tech.	Software Engineering (8 Semesters)	912*	388	524	100	100
M.S.	Software Systems	8404	5205	1779	100	100
M.Tech.	Software Systems	1848	1169	424	100	100
M.S.	Software Systems (8 Semesters)	243*	143	100	100	100
M.Tech.	Software Systems (8 Semesters)	65*	32	33	100	100
M.S.	Systems Engineering	115*	88	27	100	100
M.Tech.	Systems Engineering	84*	55	29	100	100
M.S.	Systems Engineering (8 Semesters)	435*	234	201	100	100
M.S.	Telecommunications and Software Engineering	709*	491	218	100	100

* Note: For Work Integrated Learning Programmes, wherein the programmes are offered for selected, sponsored employees of collaborating organizations, all eligible candidates sponsored by the corporate partner are offered admission.

33. Diversity of students

Name of the Programme (refer to question No. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Ph. D.	Not Available	Not Available	Not Available	NIL
M.E. (CS)	Not Available	Not Available	Not Available	NIL
M. E. (SS)	Not Available	Not Available	Not Available	NIL

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

No such data is available with the Department since students independently apply for such opportunities and as of now, the Institute does not collect such data.

35. Student progression

Student progression		Percentage against enrolled		
UG to PG		None, in the current year.		
PG to M.Phil.		Not applicable		
PG to Ph.D.		Three students during the assessment period.(through Vertical Transfer) About 3%		
Ph.D. to Post-Doctoral		None.		
Campus Placements Details				
Academic Year	B.E. (Hons.) CS	M.Sc. Tech (Hons.) IS	M.E. (CS)	M.E. (SS)
	% of Students Appeared versus Placed	% of Students Appeared versus Placed	% of Students Appeared versus Placed	% of Students Appeared versus Placed
2010-11	94.56	94.64	87.50	80
2011-12	96.74	96.67	86.36	88.57
2012-13	95.69	93.10	88.89	92.11
2013-14	92.86	91.80	83.34	81.8
2014-15	93.81	90.00	81.25	90.9
Entrepreneurs		Data not available		

Employed (Break-up):

Academic Year	B.E. (Hons.) CS	
	Campus Selection	Through other than campus recruitment
2010-11	87	5
2011-12	89	3
2012-13	89	4
2013-14	117	9
2014-15	91	6
Academic Year	M.E. (CS)	
	Campus Selection	Through other than campus recruitment
2010-11	14	2
2011-12	19	3
2012-13	16	2
2013-14	15	3
2014-15	13	3
Academic Year	M.Sc. Tech. (Hons.) IS	
	Campus Selection	Through other than campus recruitment
2010-11	53	3
2011-12	58	2
2012-13	54	4
2013-14	56	5
2014-15	54	6
Academic Year	M.E. (SS)	
	Campus Selection	Through other than campus recruitment
2010-11	24	6
2011-12	31	4
2012-13	35	3
2013-14	18	4

2014-15	20	2
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36. Diversity of staff

Percentage of faculty who are graduates		
	Graduated	PhD
of the same university	11	8+3(on going) (45.83%)
from other universities within the State	-	- (4.17%)
from universities from other States	8	5 (37.5%)
from universities outside the country	1	1 (12.5%)

WILP Data:

Percentage of faculty who are graduates	
of the same university	21.05%
from other universities within the State	0.0%
from universities from other States from universities outside the country	78.95%

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Five (Pankaj Vyas, K Haribabu, Virendra Singh Shekhawat, Vishal Gupta, Sunita Bansal)

38. Present details of departmental infrastructural facilities with regard to

- e) Library: Department does not have a separate library of its own. It shares the resources made available by our well-stocked Central Library in print and digital formats. As per Library records, there are 5560 Titles specific to the CS discipline.

WILP Perspective: Through <http://ebooks.bits-pilani.ac.in/> books 24x7 students can access over 14000 books in computer science.

- f) Internet facilities for staff and students: Department does not have its separate Internet facilities since these facilities are provided centrally by the Information Processing Centre Unit (IPC Unit) for the entire campus.
- g) Students' laboratories: Students have access to three Teaching Laboratories of the Department along with shared access to seven Laboratories of the IPC Unit, housed within the same building on two different floors. Details of the Teaching Laboratories belong to the Department are as follows.

S.No.	Date of Purchase	Software/Equipment	Qty.	LF	Remarks
1.	07.03.2012	Dell Optiplex 790T Base N Series, Intel Core i5-2500 Processor (3.30 GHz), 8 GB SDRAM, 500 GB SATA Hard Drive, DVD+/-RW, Dell 21.5" Monitor with LED , USB Optical Mouse & Keyboard, Power Cords	38 76	30/1	Dept. Budget (6017 Laboratory)
2.	31.03.2014	Dell Optiplex 3020 Minitower CTO, Intel Core i5 4570 Processor, 16 GB RAM, 16 X DVD/RW, 1 TB HDD, LED Monitor 21.5" , Keyboard & Mouse Power Cord	12 24	32/8	Dept. Budget (6017 Laboratory)
3.	31.03.2014	Dell Optiplex 3020 Minitower CTO, Intel	50	32/8	Dept. Budget

		Core i5 4570 Processor, 16 GB RAM, 16 X DVD/RW, 1 TB HDD, LED Monitor 21.5" , Keyboard & Mouse Power Cord	96		(6019 Laboratory)
4.	31.03.2014	Dell Optiplex 3020 Minitower CTO, Intel Core i5 4570 Processor, 16 GB RAM, 16 X DVD/RW, 1 TB HDD, LED Monitor 21.5" , Keyboard & Mouse Power Cord	08 16	32/8	Dept. Budget (6018 Laboratory)
5.	31.03.2014	Dell Optiplex 3020 Minitower CTO, Intel Core i5 4570 Processor, 16 GB RAM, 16 X DVD/RW, 1 TB HDD, LED Monitor 23.8" , Keyboard & Mouse Power Cord	38 76	33/10	Dept. Budget (6018 Laboratory)
6.	04.04.2015	Dell Optiplex 3020 Minitower CTO, Intel Core i5 4590 (Quad Core 3.30 GHz), 16 GB RAM (2x8), 16 X DVD/RW, 1 TB HDD, Dell Monitor 24" , Keyboard & Mouse Power Cord	04 08	34/13	Dept. Budget (6018 Laboratory)
7.	16.03.2015	8 Port 100 Mbps D-Link Switch	03	41/7	(6017,6018,6019 Laboratories)
8.	29.6.2015	Air Blower	01	3-2/5	

WILP Perspective: For selected courses there are virtual and/or online labs related to programming, design, and use of software. Students can practice and then submit assignments related to labs.

h) Research laboratories: Department has five specialized Research Laboratories as follows:

Advanced Data Analytics & Parallel Technologies Laboratory

- Room Number : 6115 (New Academic Building)
- Laboratory-in-Charge: Dr. Navneet Goyal/Mr. Saiyedul Islam

S.N o.	Date of Purchase	Software/Equipment	Qty.	LF	Remarks	Location
1.	21.07.2011	Dell™ PowerEdge™ T710 High Performance Intel 2S Tower Server, Westmere CPU Intel (R) X5670 2.7 GHz, 32 GB Memory (8x4GB) 6C 600 GB 3.5 Inch 15K RPM HDD , 16X Sata DVD+/- RW Drive, Dell™ E190S Entry 19" Flat Panel LCD Monitor , Dell™ MS III USD Optical Mouse , Dell USB 104 Keys Black Keyboard	01	8/1	SAP Project (Shan B)	Lab
2.	08.05.2013	42 U Rack Frame	02	82/1	Dept. Budget	Lab
3.	31.03.2014	42U Rack Frame	01	82/2	Dept. Budget	Hub Room
4.	29.03.2014	4 GB RAM DDR2 667 MHz (Fixed in NVIDIA Servers)	18	9/4	Dept. Budget	Lab
5.	31.03.2014	X3250M4, Xeon 4C E3-1230V269W, 3.3 GHz Server, 8 GB RAM IBM 1 TB 2.5 in HDD	17 51 17	9/5	Dept. Budget	Hub Room

		IBM 600 GB 2.5in SAS HDD Line Cord	34 17			
6.	31.03.2014	HP DL580P Gen8 CTO Server (1) 16 GB RAM (08 Nos.), 300 GB HDD (02 Nos.), 16 GB RAM (04)	01	10/6	Dept. Budget	Hub Room
7.	28.02.2012	HP LaserJet P2055 DN Printer (CE459A)	01	22/1	Dept. Budget	Lab
8.	30.03.2013	KVM Switch 16 Port Mode-CS L 316	02	40/3	Dept. Budget	Hub Room
9.	24.03.2014	CS 1316 KVM Switch	01	41/5	Dept. Budget	Lab
10.	31.03.2014	EX3300, 48 Port 10/100/1000 Base T Switch	01	41/6	Dept. Budget	Hub Room
11.	14.08.2014	Dell OptiPlex 3020 Minitower CTO Intel Core i5-4590 Processor (Quadcore HT, 3.30 GHz), 1 TB 3.5 inch Hard Drive,,16 GB (2x8GB) DDR3 RAM, 16X DVD+/-RW Drive, Dell 24" Monitor Dell Keyboard & Mouse (Optical) Power Cords	07 14		Dept. Budget	Lab
12.		HP ProLiant DL140 (NVIDIA Servers)	31		Loan from IPCU	Lab
13.	02.03.2012	EATON Powerware UPS 20 KVA	01	12/2	Dept. Budget	Hub Room
14.	30.03.2013	EA 15 KVA Online UPS	01	12/3	Dept. Budget	Lab
15.	06.04.2013	Dell Intel Core i5 3470 Processor Quadcore, 3.20 GHz, 16 GB (4x4) DDR 3 Memory, 16X Max SATA DVD/RW 2 TB 3.5" HDD	02	1/1	<i>DIT Project</i>	
16.	06.04.2013	Dell 24" Monitor with LED	04	1/2	<i>DIT Project</i>	
17.	06.04.2013	Dell Wireless Keyboard & Mouse	02	1/3	<i>DIT Project</i>	
18.	30.03.2013	CISCO Switch 2960	03	2/4	<i>DIT Project</i>	Lab
19.	30.03.2013	EMC VNxe 3150/Dual Controller/Total 4x1 GigEIP Front- End Ports/12x3 TB 7200 rpm 6Gbps, NL-SAS Disk/CIFS, NFS, iSCSI Protocols/Local Protection Suite 16 GB Memory	01	2/5	<i>DIT Project</i>	Hub Room
20.	08.05.2013	42 U Rack Frame	01	2/6	<i>DIT Project</i>	Hub Room
21.	01.06.2013	X3250M4 Special Build Server RAM 8 GB DDR3 IBM 1 TB 7.2K 6Gbps 2.5 inch HDD IBM 600 GB 10 K 6 Gbps 2.5 inch HDD IBM SATA Multi Burner Line Cord	16 48 16 32 16 16	3/7	<i>DIT Project</i>	Hub Room
22.	07.8.2013	Table Lamp	04	Furn / 25/1	Dept. Budget	Lab
23.	04.12.2014	Door Bookcase with MS Body & Glass Door (Almirah)	01	Furn /30/ 1	Dept. Budget	Lab

Embedded Systems & Robotics Laboratory

- Room Number : 6014-B (New Academic Building)
- Laboratory-in-Charge: Dr. Sudeept Mohan/Mr. Avinash Gautam

S.No.	Purchasing Date	Software/Equipment	Qty.	LF	Remarks
1.	11.03.2014	Bluetooth UART Module Arduino Uno R3 Robo Omni: 4 wheeled Omni directional Robot DIT KIT	01 01 01	85/1	
2.	31.03.2014	FireBird V2560 Sharp GP2YOA21YKOF infrared range sensor Zigbee Modules 100 m range Zigbee Modules adaptor AVRISP mkII USB Programmar ATMEGA2560 Development Board 12V, 1 Amp SMPS	07 28 07 07 01 02 02	85/2	
3.	31.03.2014	Turtlebot 2	02	86/3	
4.	05.01.2015	Turtlebot 2 Docking Station	01 01	86/4	
5.	04.04.2015	Dell Optiplex 9020 Mini Tower, Intel Core i54590 Processor (Quad Core HT, 3.3 GHz) 32 GB (4x8GB) DDR3 RAM, 1 TB 3.5" HDD, USB Optical Mouse, Dell UBS Keyboard Power Cords	08 16	34/12	

Multimedia & HCI Laboratory

- Room Number : 6014-A (New Academic Building)
- Laboratory-in-Charge: Dr. Mukesh Rohil/Dr. Sundaresan Raman

S.No.	Purchasing Date	Software/Equipment	Qty.	LF	Remarks
1.	30.03.2013	Sony Media Sound Forge 10.0	1 CD	3/8	Software
2.	30.03.2013	Nuance Omni Page Professional (Total 10 CDs- 2CDs in one Box)	05 Box (10 CDs)	3/8	
3.	10.05.2013	Programmer Ed. LPA Win Prolog for Win V.4.9 Flint Fuzzy Logic Toolkit Dialog Editor	2 CDs	3/9	Software
4.	10.05.2013	RoHs 4.1 MP B&W Gazelle Camera Link Camera, 1" CMOS-C Mount RoHs 1024 × 768 Color 2.5 mm Bumblebee2 System RoHs Bumblebee Devp. Kit	01 No. 01 No. 01 No.	45/2	
5.	24.05.2013	Online Imaging Kit for Windows: a) Hi-resolution Color Camera with accessories Lens and Tripod Stand b) Aphelion Developer GUI and SDK Imaging S/w for Windows & Pylon SDK S/w for Linux	01 Set 01 Set	45/3	
6.	30.03.2013	Logitech Wireless Head Set	25 Nos.	76/1	Navneet Goyal-1, Poonam Goyal-1, Chandramani -1
7.	07.07.2012	Microsoft Xbox 360 Kinect Holi Camera	01 No.	45/1	
8.	24.05.2013	Dell intel ® Core ™ i5-3470 Processor Quadcore 3.20 GHz, 16 GB Memory DDR3,	02 Nos.	31/5	Dept. Budget

		2 TB HDD, 16X Max SATA DVD R/W			
9.	24.05.2013	Dell Monitor 21.5"	02 Nos.	31/4	Dept. Budget
10.	24.05.2013	Dell Keyboard (Wireless) – 02 Nos. Dell Mouse (Wireless) – 02 Nos. (With Receiver -02 Nos.)	04 Nos.	32/7	
11.	04.04.2015	Dell Optiplex 9020 Mini Tower, Intel Core i54590 Processor (Quad Core HT, 3.3 GHz) 32 GB (4x8GB) DDR3 RAM, 1 TB 3.5" HDD, USB Optical Mouse, Dell UBS Keyboard Power Cords	08 Nos. 16 Nos.	34/12	
12.	26.03.2012	Dell™ PowerEdge™ T710 High Performance Intel 2S Tower Server Intel (R) Xeon (R) Processor 2.40 GHz, 900 GB HDD , DVD ROM Drive, USD Optical Mouse , USB Keyboard,64 GB Memory	01	8/2	Dept. Budget User-Vishal Gupta
13.		Glazed Almirah	01		

Networking Research Laboratory

- Room Number : 6015 (New Academic Building)
- Laboratory-in-Charge: Dr. Rahul Banerjee/Dr. V.S. Shekhawat

S.No.	Purchasing Date	Software/Equipment	Qty.	LF
9.	11.03.2014	EA 15 KVA Online UPS	01	12/3
10.	31.03.2014	Dell Optiplex 9020 Minitower, Intel Core i5-4570 Processor, 32 GB RAM, 1 TB HDD, 16X DVD/RW Drive, 23.8" Led Monitor, Keyboard & Mouse Power Cord	02 04	32/9
11.	04.04.2015	Dell Optiplex 9020 Mini Tower, Intel Core i54590 Processor (Quad Core HT, 3.3 GHz) 32 GB (4x8GB) DDR3 RAM, 1 TB 3.5" HDD, Dell Monitor 24" , USB Optical Mouse, Dell UBS Keyboard Power Cords	08 16	34/12
12.	10.03.2008	Dell India Pvt. Ltd. A0755N MT-Dell Optiplex 755 Mini Tower, 17" Monitor A0755N MT-Dell Optiplex 755 Mini Tower, 19" Monitor	04 01	110/1
13.	22.05.2013	HP Compaq Elite 8000 CMT (Computer) HP 18.5" Monitor	05	110/2
14.	25.09.2008	UPS Numeric Digital 1000 HR 45 AHB4 with Cabinet Sr. No.A908A8709CO	01	110/3
15.	28.02.2011	Netgear WGR614 Router 150MBPS WGR614 Aooins 2EB1087200249 30469A996C12	01	111/4
16.	30.06.2011	EO-11-055 Netgear WNAP210-100vks Prosafe Wireless Access Point SNo.2203115T014AO	01	111/5
17.	19.05.2011	Beagle Board XM Peripherals 1. Monitor Cable (HDMI)	01 01	111/6

		2. 4GB SD Card 3. Power Adaptor	01 01	
18.	27.07.2011	NFC ACR122 Software Development Kit	01	112/7
19.	27.07.2011	Kinect XBOX Sensor (360 3D Motion Camera)	02	112/8
20.	27.7.2011	AXISM1031-W Network Camera (Wireless IP Camera) S.No. 00408CB93678 00408CB93679	02	112/9
21.	27.7.2011	Nexus S 356951/04/006246/9	01	112/10
22.	27.7.2011	17" Touch Screen	01	113/11
23.	27.07.2011	Arduino Bluetooth	01	113/12
24.	20.12.2011	Optoma PK201 Projector Q8EN023AAAAAC1508	01	113/13
25.	02.01.2012	ACR 122 Reader (NFC Reader)	01	113/14
26.	02.02.2012	Mini Display Part DVI Adaptor Mini Display Part VGA Adaptor	01 01	114/15
27.	07.07.2013	Samsung Galaxy Tab-2 Model No.3100 S.No.354795/05/5784877	01	114/16
28.	22.03.2013	Apple I Phone Prodn Code IPN564 GB Black, Apple/Mobile IP Phone-564GB Black S.No.13418005078000	01	114/17
29.	29.10.2013	Intex Cloud Y4 Mobile Phone with 1.3 mega Pixel Front Camera Dual Sim Bluetooth, 5 MP Rear Camera: Android 4.2	02	115/18
30.	29.03.2013	iPad with Retina Display with WiFi+Cellular 64GB-White MD527 HNIA S.No.DMQTRI15NF192	01	115/19

Web Intelligence & Social Computing Laboratory

- Room Number : 6012 (New Academic Building)
- Laboratory-in-Charge: Dr. Poonam Goyal/Dr. Yashvardhan Sharma

S.No.	Purchasing Date	Software/Equipment	Qty.	LF	Remarks
1.	22.03.2014	Dell OptiPlex 3020 Minitower Intel Core i5-4570 Processor, (Quadcore, 3.2 GHz), 16 GB RAM, 1 TB 3.5 inch HDD, 16 X DVD/RW Drive, 21.5" Wide Screen Monitor with LED, Keyboard (USB) and USB Optical Mouse	01	1/1	DST Project (Yashvardhan Sharma)
2.	13.03.2014	Leximancer Perpetual Desktop License		1/2	DST Project (Yashvardhan Sharma)
3.	10.03.2014	IBM X3300M473821DA Dual Socket Server IBM Server X3100M425821KA IBM 8 GB RAM IBM 600 GB SAS HDD	01 02 01 01	1/3	DST Project (Yashvardhan Sharma)
4.	24.03.13	IBM Xeon Server E3-1220V2 with 4 GB RAM, 500 GB Hard Disk, Keyboard, Mouse, LCD 18.5", RAM (Additional) (4GB + 4 GB) = 8 GB HDD 500 GB (Additional)	01 02 01	1/2	UGC Project (Yashvardhan Sharma)
5.	04.04.2015	Dell Optiplex 9020 Mini Tower, Intel Core i54590 Processor (Quad Core HT, 3.3 GHz) 32 GB (4x8GB) DDR3 RAM, 1 TB 3.5" HDD, USB Optical Mouse, Dell UBS Keyboard Power Cords	08 Nos.	34/12	Dept. Budget

6.	06.04.2013	Dell Intel Core i5 3470 Processor Quadcore, 3.20 GHz, 16 GB (4x4) DDR 3 Memory, 16X Max SATA DVD/RW 2 TB 3.5" HDD, DVI to VGA Converter, Display Port to DVI Converter	01	1/1	DIT Project User-Chandramani Choudhary
7.	06.04.2013	Dell 24" Monitor with LED	01	1/2	DIT Project User-Chandramani Choudhary
8.	06.04.2013	Dell Wireless Keyboard & Mouse	01	1/3	DIT Project User-Chandramani Choudhary

39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university : Full Time students

Sr. No.	Name	ID No.	Source of funding
1.	Sonal Kumari	2011PHXP044P	TCS Scholar
2.	Jagat Sesh Challa	2006PH12559P	DIT Scholar
3.	Nitin Singh Rajput	2010PHXF412P	TCS Scholar
4.	Saiyedul Islam	2011PH03062P	TCS Scholar
5.	Chandramani C	2012PHXP010P	Inst. Scholar
6.	Mohit Sati	2012PHXP401P	DIT Scholar
7.	Rupal Bhargava	2013PHXP009P	Inst. Scholar
8.	Neetika Gupta	2013PHXP010P	Inst. Scholar
9.	Pranjal Ranjan	2014PHXP006P	Inst. Scholar
10.	Priyanka Gaur	2014PHXP410P	Inst. Scholar
11.	Ghanshyam Verma	2015PHXP006P	Inst. Scholar
12.	Sandhya	2015PHXP007P	Inst. Scholar

Part Time Students

Sr. No.	Name	ID No.
1.	Dinesh Kumar Tyagi	2004PHXF434P
2.	K Manjusha	2005PHXF003
3.	Vikas Singh	2008PHXF031P
4.	Amit Kumar Singh	2012PHXF419P

Under Faculty Development Program Students

Sr. No.	Name	ID No.
1.	K Venkatsubramanian	1993PHXF009P
2.	N Mehala	2008PHXF004P
3.	Vandana Agarwal	2008PHXF407P
4.	Avinash Gautam	2009PHXF436P
5.	Mayuri Digalwar	2010PHXF432
6.	Asma Rani	2013PHXF601P
7.	Sunita Bansal	2006PHXF422P

Under PhD Aspirants Scheme

Sr. No.	Name	ID No.
1	Monika Sikri	2007PHXF429P
2	Lakshmanan R	2009PHXF444P
3	Sanjay Joshi	2013PHXF301P
4	Ramaraju Harikrishnan	2014PHXF301P

- from other institutions/universities - NIL

40. Number of post graduate students getting financial assistance from the university.

ME students get varying degrees of financial assistance, depending upon the respective quantum of work as Teaching Assistants at the Department. Number of such students receiving such financial support is of the similar order across semesters. In addition, many students also get financial assistance by sharing their time in helping various Divisions and Units of the Institute.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

The Institute has strong linkages with the industries through our Practice School Programme which has a structured mechanism of taking feedback which is utilized for curriculum revision / offer of new courses / programmes. In addition, we also get feedback from the companies visiting the Institute for campus recruitment purposes.

The Institute has a continual process that enables timely review and need-based revision of curriculum. However, during the assessment period, the Department did not offer any new program.

WILP Perspective: We have systematic, periodic interactions with the representatives of the industry and the collaborating organizations to understand their emerging HRD requirements and design educational programmes to suit their corporate Learning & Development requirements.

42. Does the department obtain feedback from

i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

The Department, has its internal committees like the Departmental Committee for Academics (DCA), Cross-Campus DCA (CC-DCA), Departmental Research Committee (DRC) etc. Most of the senior faculty colleagues are the members of these bodies and co-opt other faculty colleagues based on the need of the situation. These committees meet on a regular basis. In addition, regular faculty meetings are also used to deliberate upon these matters.

WILP Perspective: Yes, we utilize the feedback to review the curriculum and revise the course handouts wherever required.

ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

The Institute has Instruction Division which is primarily responsible for monitoring quality of instruction across all the disciplines in a centralised manner. Feedback obtained from the students is shared with the faculty and the department on a regular basis. The feedback received for faculty is also utilised for the purpose of performance appraisal of faculty members.

In addition, the Department has a provision Student-Faculty Council for each batch of students which also serves as a channel for getting regular feedback which is utilized for any required mid-course corrections.

WILP Perspective: Yes, we utilize it to assign the course to appropriate faculty and request the faculty to improve certain aspects as necessary.

iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Employers' feedback is collected centrally by the Placement office and is utilized by the Department.

WILP Perspective: Yes, we utilize it to improve the curriculum and pedagogy.

43. List the distinguished alumni of the department (maximum 10)

- Dr. Aditya P Mathur, Professor, SUTD, Singapore
- Dr. Lata Narayanan, Professor, Concordia University, Montreal
- Shashikant Khandelwal, Founder & CEO, The Find, Palo Alto
- Ramendra Baoni, MD, Bi-Square, New Delhi
- Samarjit Dey, President, Strategic Initiatives, NIIT Ltd., New Delhi
- Dr. Anil Shende, Roanoke College,
- Rajat Gupta, Director, McKinsey, Mumbai
- Dr. V S Subramanian, Professor, Director: Centre for Digital International Government, Univ. of Maryland, College Park
- Dr. Rahul Simha, Professor, George Washington University, Washington DC
- Venu Palaparathi, Founder, DreamCricket.com, New York

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Department makes use of several channels for such an enrichment including special lectures of visiting experts and alumni (visiting or from their own locations by making use of technology, through an Alumni-Institute joint initiative known as Project Embryo).

S.No.	Name	Date	Topic
1.	Shambhu Upadhyaya Professor Director, CEISARE Department of Computer Science and Engineering University at Buffalo, The State University of New York	16.12.2013	Security in Data Mining
2	Dr. Venkat Kolluri Co-Founder & CEO Chitika Inc., Boston, MA, USA Formerly: Principal Analyst, UPromise	23.09.2014	TALK ON DATA MINING

	Principal Technology Analyst, Lycos Research, Research Scientist, Wisewire Ph.D. from Univ. of Pittsburgh, PA, USA		
3	Debin Gao is an Assistant Professor from School of Information Systems, Singapore Management University.	12.02.2015	"A research talk on secrecy and privacy of keystroke dynamics in user authentication
4	Mr. Mani Madhukar, Cloud Partner Lead - South, IBM Ecosystem Development Team, IBM Innovation Center, Bangalore	31.3.2015	IBM BlueMix Cloud and Beyond
5	Balaji Srinivas Holur Sr. Vice President/SRI-Bangalore-Multimedia & Systems Division/Samsung Electronics	27.07.2015	<p>Goal of the Visit:</p> <ul style="list-style-type: none"> • Opportunity for Embedded knowledge enhancements in BS/MS courses • Collaboration through real life case studies to enhance knowledge • To understand research areas at BITS Pilani & possible collaboration <p>Case Studies to be discussed during the talk, would focus on:</p> <ul style="list-style-type: none"> • BitFlip and Cache significance in case Embedded Systems • CPU behavior and RAM/ROM impact in case Embedded Systems • Embedded System Power and thermal behavior
6	Aditya P Mathur Professor, Head of Information Systems Technology and Design, and Center Director iTrust, Singapore University of Technology and Design	4.9.2015	Talk on Cutting Edge Research Opportunities in Singapore

45. List the teaching methods adopted by the faculty for different programmes.

- A. Traditional chalk and talk method alongside use of presentation slides
- B. Flipped classroom based pedagogy for select courses
- C. Telepresence-based Lecture Delivery for select courses across campuses
- D. Web-conferencing-based interactive tutorial support for select courses

WILP Perspective:

We deploy a combination of innovative pedagogic approaches including On-line lectures, Tutorials, Virtual Labs, Contact sessions and Recorded lectures as required to enhance the quality of learning experience for each course.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- The Department, has its internal committees like the Departmental Committee for Academics (DCA), Cross-Campus DCA (CC-DCA), Departmental Research Committee (DRC) etc. Most of the senior faculty colleagues are the members of these bodies and co-opt other faculty colleagues based on the need of the situation. These committees meet on a regular basis. In addition, regular faculty meetings are also used to deliberate upon these matters.
- The Institute has Instruction Division which is primarily responsible for monitoring quality of instruction across all the disciplines in a centralised manner. Feedback obtained from the students is shared with the faculty and the department on a regular basis. The feedback received for faculty is also utilised for the purpose of performance appraisal of faculty members.
- In addition, the Department has a provision Student-Faculty Council for each batch of students which also serves as a channel for getting regular feedback which is utilized for any required mid-course corrections.

WILP Perspective: There are frequent interactions with the students and alumni on the topics like:

- If they can apply the concepts learnt in the programme to their work environment.
- Is there an improvement in their skills or productivity in terms of programming, software design, software testing etc.

47. Highlight the participation of students and faculty in extension activities.

Institute has fairly active NSS and Nirman volunteer groups which, in addition to other volunteer groups, are involved in organizing several activities including the following, in which many of our students regularly participate:

- A- Annual Blood Donation camps, in collaboration with the Red Cross (for last several years, NSS, BITS Pilani has been recognized as the largest single campus contributor in terms of number of units of blood donated).
- B- Right from helping in building civic facilities to organizing evening classes and conducting skill-development programmes for socially weaker sections, our student volunteers, along with some faculty colleagues.
- C- The Department is involved in developing suitable technologies to assist the elderly and kids suffering from autism, in consultation with select NGOs and self-help groups through Project Connect and Project Communicate respectively.

48. Give details of “beyond syllabus scholarly activities” of the department.

Department’s faculty have richly contributed to various infrastructure development projects of the Institute across campuses as follows:

- A- Design and implementation of campus-wide multi-gigabit, completely switched, intranet for Pilani, Goa, Dubai and Hyderabad campuses.
- B- Design and implementation of multi-site immersive telepresence network

across four campuses and the Chancellor's Office at Mumbai.

C- Design and implementation of an enhanced and customised MOOC/SPOC Platform built by enhancing the Open edX source code. This platform is already connected to the National Knowledge Network and is accessible to students and faculty of select experimental programs across four campuses.

D- Planning, setting up and maintenance of IT Infrastructure at campus.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

By the way of carrying out research in their respective areas of expertise and interest, faculty and students of the Department routinely contribute towards creation of new knowledge.

WILP Perspective: Developed new models of evaluation including online assessment through virtual labs.

- Use of technology to deliver lectures; manage quizzes, assignments, labs, and examinations.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

<p>Strengths</p> <ul style="list-style-type: none"> • High-quality Input in terms of UG students • Strong Industry Linkages through Practice School programme • Flexible, broad-based, credit-oriented curricular structure • Availability of good infrastructure • Qualified and dedicated Faculty and Staff • Strong focus on Teaching and Learning 	<p>Weaknesses</p> <ul style="list-style-type: none"> • The Department has to accel the amount of research activities • Getting quality faculty is big challenge • Lack of consulting assignments undertaken • There is always a requirement of research infrastructure in select areas
<p>Opportunities</p> <ul style="list-style-type: none"> • Need for attracting better-quality students at Higher Degree and PhD levels • Formulation of new programmes • Development of high-quality courseware for MOOC/SPOC offerings • Improving research-ecosystem by incentivising and supporting research • Attracting international students and faculty 	<p>Challenges</p> <ul style="list-style-type: none"> • Attracting quality faculty has been a challenge • Maintaining healthy balance between teaching and research • Improving quality of publications • Improving research funding • Enhancing extent of research collaboration with external organisation

WILP Perspective:

Strengths	Weakness
<ul style="list-style-type: none"> • Well-established industry linkage. • Extensive use of computer and other technology. • Large alumni base. • Experience in managing variety of 	<ul style="list-style-type: none"> • Not having an integrated ERP solution. • Difficulty in updating virtual labs with rapidly changing landscape of skill-set requirement.

programmes.	
Opportunities	Challenges
<ul style="list-style-type: none"> • New academic programmes. • Encourage alumni to contribute in the growth and expansion plans. • Devise new pedagogy and use of technology for teaching etc. • Devise quantitative metrics for excellence in teaching and research. 	<ul style="list-style-type: none"> • Competition from other universities. • Attract and retain expertise. • Selection of appropriate faculty for certain courses having bearing on multiple-disciplinary knowledge.

52. Future plans of the department.

- Department plans to enhance its research infrastructure in the thrust areas identified by it.
- Developing and offering industry-relevant Master's programmes is also part of the thought process.
- Establishing new laboratories in select areas of specialization with support from Industries is part of the planned expansion.
- Capacity-building for consulting assignments is yet another area in which Department aims to work.

WILP Perspective:

- As part of expansion plans, increase the diversity programmes offered, attract larger number of students and increase faculty strength.
- Review programmes and align those with industry requirements.

53. Any other information regarding your department which you would like to include.

Name of Faculty	Name of the National / Int. Committee / Journal & Editorial Association/Keynote Lectures/Invited Lectures/Session Chair, Board Member / Advisor Board Member to Organisations
Rahul Banerjee	<p>Keynote Lectures:</p> <ul style="list-style-type: none"> • A Scalable Ubiquitous Computing Environment for the Elderly, UC: 2013, A national workshop on the Internet of Things, C-DAC, Hyderabad. • Project Connect: A Pervasive Computing Approach for Assisting the Elderly, Keynote Lecture, COMPUTIA, A national conference on computation and mathematical sciences, Jaipur. • Technologies Having Potential of Touching Lives of Those Who Need Them Most: Project Communicate for the Children Suffering from Autism and Project Smile for the Orphans, Keynote Lecture, delivered at the National Conference on Recent Advances in Information Technology (RACIT), Jaipur. • A Scalable Open-Learning Experiment at BITS Pilani: Projects Any-Learn and NetFirst: -- A Perspective from Ground Zero, EZ India Summit featuring Google for Education, Jaipur. <p>Invited Lectures:</p> <ul style="list-style-type: none"> • Cloud-Assisted Pervasive Computing: State-of-the Art, PCE, Jaipur. • Cloud Computing: Suitability of Cloud Computing as a Vehicle for Defence-Specific Services, DEFCOM, New Delhi. • Glimpses into the world of Pervasive Computing, L. N. Mittal Institute of Information Technology, Jaipur. • Ubiquitous Computing in Higher Learning: IoT to IoPPT and Beyond, CII's ICT-East Summit on Internet of Things, Kolkata. • Body Area Networks: Safety & Security Concerns and Emerging Solution Approaches,

	International Conference on Secure Knowledge Management in Big Data Era: SKM, Dubai.
Poonam Goyal	Committees (PC/TC): <ul style="list-style-type: none"> PC Member: Intelligent Interactive Technologies and Multimedia (iitm)
Yashvardhan Sharma	Committees (PC/TC): <ul style="list-style-type: none"> PC member: National Conference on Data Warehousing and Data Mining. Invited Speaker: National Conference on Data Warehousing and Data Mining.
Poonam Goyal	Invited Lecture: Short Term Course on Machine Intelligence at MNIT Jaipur
Virender Singh Shekhawat	Invited speaker: Short term course conducted on Security in computer Networks and Distributed Systems in collaboration with NTTR Chandigarh in Govt. College of Engineering and Technology, Bikaner (Raj.)
Mukesh Kumar Rohil	Invited Speaker: "Intelligent Image Processing for Some Problem Domains"; Three-Day Refresher Course on Modern Imaging Research: Research Avenues and Challenges; AIT A.P., India.
Virender Singh Shekhawat	Invited speaker: National Conference on Security in computer Networks and Distributed Systems (SCNDS), Sponsored by AICTE and TEQIP-II, Govt. Engineering College, Ajmer (Raj.)
Vishal Gupta	Committees (PC/TC): <ul style="list-style-type: none"> Program Committee: International Conference on Advanced Computing and Communication Systems (ICACCS).
Mukesh Kumar Rohil	Invited Speaker: "Prolog Programming for Machine Learning: A Demonstration of Several Machine Learning Techniques"; AICTE Sponsored Three-Day Seminar on Frontiers in Machine Learning Algorithms; Aditya Institute of Technology & Management (App. by AICTE & Affl. to --JNTU, Kakinada); Tekkali, Srikakulam Dist., 532201, A.P., India.
Poonam Goyal	Session Chair: International Conference on Evidence Based Management (ICEBM) BITS <ul style="list-style-type: none"> Invited Lecture: On Big data Analytics, LMNIT Jaipur Invited Lecture: National Workshop on "Data Mining & Big Data Analytics" at Amity University Rajasthan, Jaipur
Vishal Gupta	Committees (PC/TC): <ul style="list-style-type: none"> Program Committee: Third International Symposium on Intelligent Informatics (ISI), SCNDS – 2014. Program Committee: International Conference on Computing and Communication Technologies, ICCCT, Osmania University, Hyderabad. Program Committee: International Conference on Advanced Computing and Communication Systems (ICACCS).
Pankaj Vyas	<u>Invited Lectures</u> <ul style="list-style-type: none"> Topic "Safety Requirement Derivation From Use-Cases Using SFTA Approach" at Rajasthan Institute of Engineering and Technology (RIET), Jaipur ,Rajasthan, Date: 29th March, 2012 Topic "Safety Requirement Derivation From Use-Cases Using SFTA Approach" at Rajasthan College of Engineering For Women, Jaipur, Date: 29th March, 2012 Topic "Role of Software Safety in Safety-Critical Systems" at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, Date: 8th August, 2013.
Avinash Gautam	Invited Talks: <ul style="list-style-type: none"> Network Attacks and Prevention Strategies. In National Conference on Security in Computer Networks and Distributed Systems Geometric Pattern Formation by Multiple Mobile Robots Algorithm. India-HU Workshop for Sensing & Robotics (HiSENS).
K Haribabu	Committees (PC/TC): <ul style="list-style-type: none"> Program Committee: 1st International Conference on "Next Generation Computing Technologies" (NGCT)

K Hafizul Islam	<p>Committees (PC/TC):</p> <ul style="list-style-type: none"> • Program Committee: International Conference on Artificial Intelligence and Communication Engineering (AICE), Macao, China. • Program Committee: IEEE, 2nd Conference on Number Theory and Cryptography (NTC), Bangkok, Thailand. • Advisory Committee Member: IEEE, International Conference on Trends in Automation, Communications and Computing Technology(ITACT), Acharya Institute of Technology, Bangalore, India. • Program Committee: IEEE International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT), Bapuji Institute of Engineering & Technology (BIET), Davangere, Karnataka, India. • Program Committee: Third IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI), Galgotias College of Engineering & Technology, New Delhi, India. • Program Committee: First IEEE International Conference on Networks & Soft Computing (ICNSC), Vignan University, Guntur, Andhra Pradesh, India. • Program Committee: First International Conference on Secure Knowledge Management on Big-Data era, BITS Pilani, Dubai Campus, Saudi Arabia. • Program Committee: First Conference on on Number Theory and Cryptography (NTC), Shanghai, China. • Program Committee: 2nd Spring Conference on Wireless Communications and Networks (CWCN-S), Suzhou, China. • Program Committee: Internet and Digital Economics Conference (IDEC), Beijing, China. • Program Committee: 4th International Conference on Electronics, Communications and Networks (CECNet), Beijing, China. • Program Committee: IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES), National Institute of Technology, Kozhikode, Calicut, India. • Program Committee: Fifth IEEE International Conference on Computer and Communication Technology (ICCT), MNNIT Allahabad, India. • Program Committee: Fourth International Conference on Advances in Computing, Communications and Informatics (ICACCI), SCMS School of Engineering and Technology, Aluva, Kochi, India. • Program Committee: IEEE International Conference on Computing, Communication & Automation, School of Computer Science and Engineering, Golgotia University.
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Workshops Organised by the Faculty of the Department

Sr. No.	Academic Year	Name of Faculty	Name and Venue of the UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs
	2010-2011	Dr Pankaj Vyas	Organizer: workshop on IBM Rational Suite Enterprise (RSE) and Rational Software Architect (RSA) tools
	2012-2013	Prof J P Misra	Coordinator: Workshop on Design of heuristic based controllers for power plant application
	2013-2014	Prof Navneet Goyal Prof Poonam Goyal Prof Sundar Balasubramaniam	Coordinators: International Workshop on Data Analytics & Application
	2014-2015	Prof Navneet Goyal Prof Poonam Goyal Prof Sundar Balasubramaniam	Coordinators: Indo- Chile Workshop on Big Data

The Department is also exploring the possibility of developing and offering skills development programmes, preferably in consultation with the National Skills Development Programme.

Pilani Campus: Evaluative Report of the Department

ECONOMICS AND FINANCE

1. Name of the Department : Economics and Finance

2. Year of establishment : 1944

- A Traditional Graduate and Post-graduate Economics programme was introduced in 1944 at Pilani. Subsequently the following degree programs were introduced replacing the traditional degrees.
 - A conventional M.A. (Hons.) Economics program was introduced in 1964.
 - Five year integrated M.A. (Hons.) degree program without practice school was introduced in 1973. (The normal input was a pass in 10 + 1 from the Central/State Board or equivalent with Physics, Chemistry, Mathematics and adequate proficiency in English.)
 - Practice School Programme (University-Industry linkage programme) extended for Economics discipline in 1974.
 - M.A. (Hons.) Economics programme was changed to M.Sc. (Hons.) Economics in the year 1979.
 - Dual degree program in M.Sc. (Hons.) Economics along with an Engineering degree came into existence in the year 1979.
 - The existing four year integrated M.Sc. (Hons.) Economics degree with or without practice school was introduced in 1981.

3. Is the Department part of a School/ Faculty of the university:

Departments function as independent entities in the university and are not part of any school or faculty.

4. Names of Programmes / Courses offered UG PG M.Phil. Ph.D.

- Integrated Masters - Four Year M.Sc. (Hons.) Economics
- Integrated Masters - Four Year M.Sc. (Tech) Finance
- Minor in Finance
- Ph. D.

5. Interdisciplinary Programmes and departments involved: Department do not offer any interdisciplinary Programme.

6. Courses in collaboration with other universities industries foreign institutions etc.:

Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.

7. Details of programmes / courses discontinued if any with reasons:

Integrated M.Sc. (Tech.) Finance programme is temporarily suspended.

8. Annual/ Semester/Choice Based Credit System: Semester and Choice based Credit System

9. Participation of the department in the courses offered by other departments:

Degree	Department	Courses
MBA	Management	<ul style="list-style-type: none"> Managerial Economics Investment Banking and Financial Services Business Policy and Strategic management Security Analysis and Portfolio Management Project Appraisal Risk Management and Insurance Financial Engineering Business Analysis and Valuation
M. Sc. (Tech.) General Studies	Humanities and Social Sciences	<ul style="list-style-type: none"> Development Economics
MBA in Consultancy Management MBA in Quality Management MBA in Manufacturing Management M. Tech. Automobile Engineering	Work Integrated Learning Programmes (WILP)	<ul style="list-style-type: none"> Managerial Economics Financial Management
B. Tech. Engineering Technology		<ul style="list-style-type: none"> Project Appraisal

10. Number of teaching posts sanctioned and filled (Professors/Associate Professors/Asst. Professors/ Others)

Posts	Sanctioned	Filled	Actual
Professor	Note**	2	2
Associate Professor		1	1
Assistant Professor		4	4
Others		1	1

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Arya Kumar	Ph. D.	Professor	Entrepreneurship, Financial Management and Banking	35	8
N V Muralidhar Rao	Ph. D.	Professor	Econometrics, Financial and Microeconomics	25	8
A K Giri	Ph. D.	Associate Professor	Macroeconomics, Financial Economics,	16	3
Geetilaxmi Mohapatra	Ph. D.	Assistant Professor	Environmental and Resource Economics, Development Economics	10	1

Krishna M	PhD	Assistant Professor	Labour Economics, Microeconomics	3	-
Arun Kumar Vaish	Ph.D	Assistant Professor	Finance, Credit Risk Management, Microfinance	24	1
Omvir Chaudhry	Ph.D	Assistant Professor	Growth Economics & Technology Management	31	1
Rajan Pandey	MSc Finance	Lecturer	Finance	10	-

12. List of senior Visiting Fellows faculty adjunct faculty emeritus professors: NIL

13. Percentage of classes taken by temporary faculty – programme-wise information: NIL

14. Programme-wise Student Teacher Ratio:

Sl. No.	Programme	Ratio
1	M. Sc. (Hons.) Economics (284 students)	35.3:1
2	Ph. D. (8 students)	1:1

15. Number of academic support staff technical and administrative staff: ONE

16. Research thrust areas recognized by funding agencies:

- Macroeconomics
- Microeconomics and Industrial Economics
- Public Finance and Policy.
- International Economics
- Applied Econometrics and Quantitative Techniques in Economics and Finance.
- Corporate Finance
- Investment Analysis and Management
- Financial Economics and Financial Engineering.

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.

Completed Projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Strategies to Meet Manpower Requirements for Power Sector up to 2020	Arya Kumar	DST	9.6	3 years

18. Inter-institutional collaborative projects and associated grants received: NIL

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received: NIL

20. Research facility / centre with

- **state recognition** : None
- **national recognition** : None
- **international recognition** : None

Recently Department received 34 desktop computers and is creating central computational laboratory for students and faculties. The research laboratory is expected to have statistical and econometrics software and important economics and finance data.

21. Special research laboratories sponsored by / created by industry or corporate bodies:

Recently Department received 34 desktop computers and is creating central computational laboratory for students and faculties, loading statistical and econometrics software. The important economics and finance data are also being planned to make available at this laboratory.

22. Publications:

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals: National International	26 22
2	Monographs	0
3	Chapters in Books	5
4	Edited Books	0
5	Books with ISBN with details of publishers	5
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	10
7	Citation Index – range / average	00
8	SNIP	Not Applicable
9	SJR	Not Applicable
10	Impact Factor – range / average	0.002 – 2.89
11	h-index	00
12	Conference papers (National/ International)	30

Details of the publications as per the number give above (Give details in the last five years: (A) Research Papers published in the Peer Reviewed Journals:

Sl No.	Authors	Title of Publications	Details of the Journal	National/ International	Year
1	N V M Rao and Varun Chotia	Examining the Inter-linkages between Regional Infrastructure Disparities, Economic Growth and Poverty: A Case of Indian States"	Economic Annals, Volume LX, No. 205, pp. 53-71	International	2015
2	N V M Rao and Varun Chotia	Investigating the Landscape of India's Balance of Payments: Cointegration and Causality Analysis"	International Journal of Statistics and Economics, Volume 16, No. 3, pp.44 – 53.	International	2015
3	N V M Rao , A Gupta and Varun Chotia	Financial Inclusion and Human Development: A State-Wise Analysis from	International Journal of Economics, Commerce and Management, Vol. 2, No.	International	2014

		India".	5,pp. 1- 23.		
4	N V M Rao, T Poddar and Varun Chotia	An Empirical Study analyzing the Relationship between Human Development and Economic Growth: Evidences from Six Major Economies"	IRC's International Journal of Multidisciplinary Research in Social and Management Sciences, Vol. 2, No. 3, pp. 1-10.	National	2014
5	Kashiramka, S. and Rao, N.V.M.	Shareholders' Wealth Effects of Mergers and Acquisitions on Acquiring Firms in Indian IT & ITeS Sector	South Asian Journal of Management", Vol.21, No.3, pp.140-166	National	2014
6	Kashiramka, S. and Rao, N.V.M.	Do M&A announcements create shareholders wealth? Evidence from an emerging economy	Asian Economic Review, Vol. 56(1), March 2014, pg 79-92.	National	2014
7	Kashiramka, S. and Rao, N.V.M.	Shareholders wealth effects of Mergers & Acquisitions in different deal activity periods in India	European Journal of Business and Management, Vol.5-4, 2013, pg 116-129	International	2013
8	Kashiramka, S. and Rao, N.V.M.	Do Target Firms Gain on M&A Announcement ?", Evidence from Indian IT&ITeS Sector	International Journal of Research in Management, Vol. 5(2), pg 65-81	International	2012
9	Kashiramka, S. and Rao, N.V.M.	Impact of Mergers and Acquisitions on the Performance of the Firms: An Indian Perspective	Contemporary Social Science, Vol 21(1), pg 1-28.	National	2012
10	Kashiramka, S. and Rao, N.V.M.	Managing Human Resource Issues in Mergers and Acquisitions: Pre and Post deal pitfalls	Knowledge News- An International Journal of Ideas, Vol 1(2), pg 287-293.	National	2011
11	Archana Shekhawat and N.V.M Rao	Environment Management System in Indian Food Packaging Industry: Variable Identification and Selection,	International Journal of Research in Commerce and Management, Vol.1, Issue.6, pp 14. (ISS	National	2011
12	Archana Shekhawat and N.V.M Rao	Integrated Framework for Environment Management System in Indian Food Packaging Industry	Journal of Management Science, Vol. 2, No.1, pp 18.	National	2011
13	Archana Shekhawat and N.V.M Rao	Environment Management System in Indian Food Packaging Industry: Justification of Factors using AHP (Analytical Hierarchical Process),	International Journal of Advanced Economics and Business Management, Vol. 2, Issue No.2 pp 29-50	National	2011
14	Archana Shekhawat and N.V.M Rao	A Conceptual Model for Environment Management by Organizations in Food Packaging Industry	International Journal of Advanced Economics and Business Management, Vol. 2, Issue No. 2, pp 51-57.	National	2011
15	Archana Shekhawat and N.V.M Rao	Environment Management System Variable Verification-A Qualitative Pilot Study	International Journal of Indian Culture and Business Management	International	2011
16	Archana	Environment Management	International Journal of	National	2010

	Shekhawat and N.V.M Rao	System in Indian Food Packaging Industry: Variable Identification and selection	Research in Commerce and Management", Vol.1, Issue.6, pp14.		
17	Archana Shekhawat and N.V.M Rao	Integrated Framework for Environment Management System in Indian Food Packaging Industry	IIMS Journal of Management Science" Vol.2,No.1, pp 18., 2010	National	2010
18	Kashiramka, S. and Rao, N.V.M	Studies on some aspects of Mergers and Acquisitions since 1990: An Indian Perspective",	Journal of National Development, Vol 23 (2), pg 57-68.	National	2010
19	A K Giri and Madhu Sehwat	Financial development, poverty and rural-urban income inequality: evidence from South Asian countries	Quality and Quantity, Springer DOI: 10.1007/s11135-015-0164-6	International	2015
20	A K Giri and Madhu Sehwat	The role of Financial development in economic growth: Empirical evidence from Indian States	International Journal of Emerging Markets, Emerald, Vol. 10, No.4, pp.23-34.	International	2015
21	A K Giri and Madhu Sehwat	Financial development and economic growth: empirical evidence from India	Studies in Economics and Finance, Emerald, 32(3), 340 – 356	International	2015
22	A K Giri, Geetilaxmi Mohapatra and Madhu Sehwat	The impact of financial development, economic growth and energy consumption on environmental degradation: Evidence from India	Management of Environmental Quality, Emerald, 26 (5), 666-682.	International	2015
23	A K Giri and Madhu Sehwat	Re-examining the Threshold Effects in Inflation–Growth Nexus: Evidence from India”	International Journal of Economics and Empirical Research, 3 (2), 57-67.	International	2015
24	A K Giri and Madhu Sehwat	Financial Development and Income Inequality in India: An Application of ARDL Approach	International Journal of Social Economics, Emerald 42 (1), 64-81	International	2015
25	A K Giri and Madhu Sehwat	The relationship between Financial Development Indicators and Human Development in India	International Journal of Social Economics, Emerald, 41 (12), 1194 – 1208.	International	2014
26	Geetilaxmi Mohapatra and A K Giri	Energy Consumption, Economic Growth and CO2 emissions: Empirical Evidences from India	The Empirical Econometrics and Quantitative Economics, Vol. 4, No. 1, pp.17-32.	International	2015
27	Geetilaxmi Mohapatra and A K Giri	Does Foreign Aid Accelerate Economic Growth? An Empirical Analysis for India",	Utkal Economic Papers, Vol.17, pp. 43-59. ISSN-.0976-7592	National	2014
28	A K Giri and Madhu Sehwat	Inflation and Financial Sector Development: Evidences from Indian Economy	International Journal of Multidisciplinary Research, 2 (3), 118-121.	International	2013
29	A K Giri and	Inflation in India: Empirical	International Academic	International	2013

	Madhu Sehrawat	Analysis using VAR Approach	Research Journal of Economics and Finance, 2 (1), 1-8.		
30	A K Giri and Madhu Sehrawat	Measuring Core Inflation in India-An Empirical Evaluation of Alternative Methods	International Journal of Social Science, 3 (2), 155-178	National	2013
31	A K Giri and Pooja Joshi	Fiscal Deficits and Stock Prices in India: Empirical Evidence	International Journal of Financial Studies Vol.3 (3), pp.393-410	International	2015
32	A K Giri and Pooja Joshi	Macroeconomic Variables and Stock Market Development in India: An Application of ARDL Bounds Testing Approach	The Empirical Letters Vol. 7, No. 4	International	2015
33	A K Giri and Pooja Joshi	Macroeconomic determinants of Stock market development: Empirical evidence from India	Business Perspectives Vol. 4, No. 2	National	2015
34	A K Giri and Pooja Joshi	Causal Relationship between Stock market Indices and macroeconomic Variables: Empirical Evidences from India	International Journal of Multidisciplinary Research, Vol.2, No. 3	International	2013
35	A K Giri and Pooja Joshi	An Empirical Analysis of the Relationship between Stock Market Indices And Macroeconomic Variables: Evidences from India	International Academic Research Journal of Economics and Finance, Vol.2 No.1.	International	2013
36	Krishna M and Bino Paul G D	On-the-job Search in India: Some Macro Findings	Labour and Development Vol 21, No 2	National	2015
37	Krishna M	Employment in India	World Economic Journal, Vol 15, No 4, October-December	International	2014
38	Dadhich, Gaurav, Varun Chotia & Omvir Chaudhry	Impact of Foreign Institutional Investment On Stock Market Volatility In India	Indian Journal of Finance	National	2015
39	Arun Kumar Vaish, Arya Kumar and Anil Bhat	Stakeholders' Perspective of Service Attributes: An Empirical Study about Money Lending in Rural India	Asia pacific Journal of Research in Business Management, Vol. 2 Issue 12, pp141-153.	National	2011
40	Arun Kumar Vaish, Arya Kumar and Anil Bhat	Need For Credit Scoring in Micro Finance: Literature Review	International Journal of Research in Commerce, Economics & Management, Vol. 1, Issue 6, pp.69-73	National	2011
41	Arya Kumar and Akhilesh Tripathi	NPAs Management in Indian Banking – Policy Implications	IMS Manthan, The Journal of Innovations, IMS Noida, Vol. VII, Issue 2, pp. 9-18	National	2012
42	Arya Kumar and Akhilesh Tripathi	Treasury Operations in Indian Banks – Challenges in	The Indian Banker, Journal of Indian Banks Association,	National	2013

		Operational Risk Management,	Risk	Vol. VIII No. 5, pp.22-31.		
43	Arya Kumar and Akhilesh Tripathi	Operational Risks – Mapping, Assessment and Measurement Issues, Bank Quest,		The Journal of Indian Institute of Banking & Finance, Vol. 84, No. 3 July – Sept, pp. 28-36.	National	2013
44	Arya Kumar and Akhilesh Tripathi	Operational Risk Management in Treasury Operations in Banks – Issues and Concerns,		Business Markets Plus, Vol. 2 No 1 June.	National	2013
45	Arya Kumar and Anmol Gupta	Macroeconomic Determinants to Forecast Stock Market Index		Business Perspectives, Vol. 13, No.2, pp.79-0	National	2014
46	Krishna M and Bino Paul GD	What Explains Wage in India		Indian Journal of Industrial Relations, Vol.48, No. 3, pp487-499.	National	2013
47	Krishna M and Bino Paul GD	Labour Market in Urban Agglomerations: A Case from an Indian Global City		Science, Technology and Society: An International Journal, Vol.17, No.3, sage Publication	International	2012
48	Krishna M, Bino Paul GD and Saritha CT	Does Change in Science and Technology explain Dynamics in Human capital? An inquiry into emerging trends in nursing labour market		IASSI-Quarterly: Contributions to Indian Social Science, Vol.30, No. 3&4, July-December, pp: 33-62	National	2011

(B) Conference Papers (National/ International):

Sl No.	Authors	Title of Publications	Details of the Conference	National/ International	Year
1	N V M Rao and Varun Chotia	A GMM based approach to examine the relationship between expenditure in Social Infrastructure and Human Development	Annual Conference, Papers in Public Economics and Policy organized by National Institute of Public Finance and Policy, New Delhi (NIPFP)	National	2015
2	N V M Rao and Varun Chotia	the Relationship between Labour Laws and Economic Development of India	International Conference on Law and Economics jointly organized by Gujarat Law University, IIM Ahmedabad and IIT Kanpur	National	2015
3	N V M Rao and Varun Chotia	Analyzing the Trends and Major Factors in India's Balance of Payments Function: Modeling using Cointegration Approach	International Conference on Emerging Trends in Business and Economy: Mapping the way Ahead, Organized by Department of Management Studies, Poornima University, Jaipur	National	2014
4	N V M Rao and Varun Chotia	A Dynamic Correlation Study analyzing the Relationship between Business Cycles and Economic Growth – Evidences from G7 Nations and Asian Economies	34 th Annual Conference of Rajasthan Economic Association (REA) - Indian Economy: Prospects and Challenges, Organized by Department of Economics, St. Xavier's College, Jaipur	National	2014
5	Anurag Gupta, N V M	Financial Inclusion and Human Development: A	International Conference on Social Sciences and Business	International	2014

	Rao and Varun Chotia	State-Wise Analysis from India	(ICSSB2014), Hongkong		
6	Smita K and N V M Rao	Do Insider Trading Regulations work in India? Evidence from IT sector	India Finance Conference, Jointly organized by IIM-Ahmadabad,		2013
7	N V M Rao	Issues in Economics of Spam	C I O Thought Leadership Forum – Conference’, Organized by Intel, Microsoft and HP at Udaipur,	International	2012
8	N V M Rao	Next Generation Data Centre	Next Gen Data Center Forum Conference – Organized by Intel, Microsoft and Dell, Kochi, Kerala, India.	International	2011
9	N V M Rao	Overcoming Cost Challenges in Today’s Data Center”,	Next Gen Data Center Forum Conference Organized by Indian Express Group, Intel, Microsoft and Dell at Goa, India.	International	2011
10	Archana Shekhawat and N V M Rao,	Environment Management System in Indian Food Packaging Industry: Variable Identification and Selection	2nd International Conference on Applied Economics and Time Series Econometrics at Indian Business School (IBS) Hyderabad,	National	2010
11	A K Giri and Madhu Sehrawat	Panel data analysis of financial development, economic growth and rural-urban income inequality: Evidence from SAARC Countries.	2 nd International conference on Economics and Finance, Organized by Nepal Rastra Bank, Kathmandu, Nepal	International	2015
12	A K Giri and Madhu Sehrawat	An empirical relationship between financial development indicators and human capital in some selected Asian countries	2 nd International conference on Economics and Finance, Organized by Nepal Rastra Bank, Kathmandu, Nepal	International	2015
13	A K Giri and Geetilaxmi Mohapatra	The composition of public expenditure and economic growth in India: Evidence from Auto-Regressive Distributed Lag Approach	2 nd International conference on Economics and Finance, Organized by Nepal Rastra Bank, Kathmandu, Nepal	International	2015
14	A K Giri and Geetilaxmi Mohapatra	Impact of Environmental Degradation on Human Development: An Empirical Study for India.	National Seminar on Environment and Economic Development, North Orissa University	National	2014
15	A K Giri and Madhu Sehrawat	Financial development and economic Growth: empirical evidence from India	National Seminar of Input Output Economics: Application of Planning, at Gokhale Institute of politics and Economics, Pune, India.	National	2014
16	A K Giri and Madhu Sehrawat	The relationship between Financial Development Indicators and Human Development in India: An application of ARDL Approach.	4th International Conference on Applied Econometrics, IBS Hyderabad.	National	2014

17	A K Giri and Madhu Sehrawat	Financial Development and Poverty reduction: Panel data analysis of Asian Countries.	National Seminar on Applications of Panel Data, Centre for Economic and Social Studies (CESS), Hyderabad.	National	2014
18	A K Giri and Pooja Joshi	Fiscal Deficits and Stock Prices in India: An Empirical Evidence.	4th International Conference on Applied Econometrics, IBS Hyderabad.	National	2014
19	Mohit Alimchandani , Arya Kumar and Anil Bhat	Power Sector in India: Drivers for sustainable Development	3rd Annual Global Business Summit Conference, organized by Global Strategic Management Incorporation(GSMI) at Michigan	International	2011
20	Arya Kumar	Entrepreneurship Education at An Innovative Approach	REE 12 Asia Round Table on Entrepreneurship Education by Stanford Technology Venture Program, Stanford University organised by Thammasat University, Bangkok,	International	2012
21	Arya Kumar, S K Mohapatra and P Kacholia	Changing Consumption Pattern of Residents of Mumbai and its Future Implications	1st International Symposium on Business, Economics and Financial Applications held in Argostoli, Kefalonia, Greece	International	2012
22	Anmol Gupta and Arya Kumar	Economic Determinants to Forecast Stock Market Index	International Conference on Economic and Social Sciences, Bangkok	International	2013
23	Anmol Gupta and Arya Kumar	Determinants of Exports and imports of Indian Economy in Post Liberalisation Period and Policy Implications	Seventh World Congress – International Economic Association at Center at the Dead Sea, Jordan.	International	2014
24	Krishna M and Bino Paul	Structure of Collaboration in Indian Social Sciences: Exploring the Dynamics	Seminar on Institution, Structure, and Organisation in Globalising India, with special focus on Science and Technology, Economy and Society held at the Indian Institute of Technology, Bombay,	National	2012
25	Krishna M	Labour market in urban agglomerations: A case from an Indian global city	sixth annual conference of the Forum for Global Knowledge Sharing held at the University of Goa	National	2011
26	Krishna M	Labour mobility in the Manufacturing Industry in Karnataka	Seminar organised by the LSE Asia Research Centre at the London School of Economics and Political Science	International	2011
27	Krishna M and Bino Paul	Does Change in Science and Technology Explain Dynamics in Human Capital? An Inquiry into Emerging Trends in Nursing Labour Market	fifth annual conference of the Forum for Global Knowledge Sharing, held at the Indian Institute of Technology, Bombay	National	2010
28	Krishna M	Pattern of Sectoral	2nd IMSc Complex Systems	National	2010

		Linkages since Liberalisation in India: Exploration through Network	School at the Institute of Mathematical Sciences, Chennai.		
29	Krishna M	The Strength of Weak Ties versus The Strength of Strong Ties	Globalisation and Social Transformation: The Indian Experience', held at the Tata Institute of Social Sciences, Mumbai	National	2012
30	Rajan Pandey and Arya Kumar	Modelling persistence in conditional volatility of asset returns	11 th International Conference on Business and Finance, The conference was organized by ICFAI Business School, Hyderabad.	National	2015

c) Chapters in Book:

- Pooja Joshi and A K Giri, "Sensitivity of Stock Market Indices to Oil price, Exchange Rate and Economic Growth: Evidence from Industrial Sub-sectors in India", in Econometric Applications in Management ed. By R C Sharma and Sanjay Kumar Garg, pp.207-229, National Publishing House, Jaipur, 2013.
- Arya Kumar, "Managerial Challenges in 21st Century - Insights from Geeta" in the book titled Spiritualism in Education ed. by Dr Shalini Gupta and published by Desh Bhagat University Gobindgarh, 2013.
- Arya Kumar, "Need and Importance of Market Research for Medium, Small and Micro Start-ups", in the book on Entrepreneurship, ed. by Sasi Misra and Dinesh Awasthi, EDI and Book Well, New Delhi 2013, pp 425-436.
- Krishna M, "Job Search Methods in the Labour Market: An Empirical Analysis", in Padma Prakash (eds), Jobs and livelihoods: Mapping the landscape. Mumbai, IRIS Knowledge Foundation, 2014.
- Krishna M and Bino Paul, "Youth Labour Market in India: Opportunities and Choices", in Padma Prakash (eds), State of the Urban Youth, India 2013: Employment, Livelihoods, Skills. Mumbai, IRIS Knowledge Foundation, 2013.

(D) Books Published by Faculty:

- Arya Kumar, Entrepreneurship – Creating and Leading an Entrepreneurial Organisation, Pearson, ISBN: 8131765784, April 2012.
- Anubhavananda and Arya Kumar, Ethics in Management, ISBN: 9788180522901, Ane Books India, 2012.
- Omvir Chaudhry and Prakash Singh, Principles of Management, New Age International Publishers, New Delhi, 2011. ISBN: 978-81-224-3094-4.
- A K Giri and B Kamaiah, Demand for Money in India: New Issues and Evidences", Lap Lambert Academic Publishing, Germany, 2011, ISBN :978-3-8465-1487-0.
- Geetilaxmi Mohapatra and A K Giri, "Economic Development and Environmental Degradation: A Study of Indian Situations", Lap Lambert Academic Publishing, Germany, 2011, ISBN: 978-3-8465-3575- 2.

23. Details of patents and income generated: NIL

24. Areas of consultancy and income generated: NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad: NO

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify):

- Prof. N V M Rao, Committee Member, PG Board of Studies, CBL University Haryana
- **Editorial Boards**
- Prof. N V M Rao , Editor, Economics and Finance Procedia, Elsevier
- Prof. N V M Rao, Editorial and Review Committee Member: EJEG, (The Electronic Journal of e-Government, EJEG is published by Academic Publishing Limited Curtis Farm, Kidmore End, Nr Reading, RG4 9AY, UK
- Prof. N V M Rao, Editor-In-Chief of QQE (Qualitative and Quantitative Economics) Research for 2015, 2014, 2013, 2012 and 2011.
- These Conference Proceedings (Print ISSN: 2251-2012, E-Periodical ISSN: 2251-2020) are published by Elsevier, Procedia and also will be indexed by EBSCO, Cross Ref, Proquest, Ulrich's and will be submitted to Scopus, Science Direct and Cabell's Directories amongst others, where applicable.
- Prof. N V M Rao , Member, Editorial Board, Journal of Practicing Managers (ISSN 2230-7419)
- Prof. N V M Rao, Reviewer - United Nations ESCAP's Asia Pacific Development Journal, Macroeconomic Policy and Development Division, Economic and Social Commission for Asia and the Pacific (ESCAP)
- Dr. Omvir Chaudhry acting as Adviser to Shridhar University, Pilani and VIT Global University Jaipur.
- Prof. Arya Kumar is part of NEN Faculty Advisory Board.
- Prof. Arya Kumar served as expert for Economics exams conducted by UPSC
- Prof. N V M Rao acted as expert for IES exams.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):

- Faculty development programmes: Department organizes seminar series every semester for faculty and research scholars.
- Workshop: Dr. Geetilaxmi Mohapatra participated in the National Workshop on Environmental Impact Assessment", organized by IIT Bhubaneswar in the year 2012.

28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects: 100%**
- **Percentage of students doing projects in collaboration with other universities / Industry / institute. 100%**

29. Awards / recognitions received at the national and international level by**Faculty :**

- Prof. Arya Kumar was awarded as distinguished faculty in recognition and appreciation of his dedication, interest, enthusiasm and attitude in accomplishing his assigned mission of teaching by BITSAA International in 2011
- Prof. Arya Kumar Received Global Excellence Award for Outstanding Contribution to Management Education - 2012 by Management Teachers Consortium (MTC).

Doctoral / post doctoral fellows: NIL.**Students:** Mr. Rohit Agarwal received University Gold Medal in 2015**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any. :**

Year	Workshop Organized	Convenor(s)	Profile of Participants	Funding Agency
2011	Sensitization program on IPR at Goa	Arya Kumar A K Vaish	MSMEs and Students	Ministry of MSME, Government of India
2012	IPR Management Workshop at Bhiwadi Rajasthan	A K Vaish	MSMEs and Students	Ministry of MSME, Government of India
2015	IPR Management Workshop at Goa	A K Vaish	MSMEs and Students	Ministry of MSME, Government of India

31. Code of ethics of research followed by the Department.

The department follows the code of ethics specified by the Institute. These are detailed in the SSR.

32. Student profile programme-wise:

Name of Programme	Year	Applications Selected/Received	Selected Male	Selected Female	Pass percentage
M.Sc.(Hons)	2010-11	139234/14662*	41	9	100
	2011-12	123677/12880*	39	11	100
	2012-13	136904/15714*	42	9	100
	2013-14	166260/15120*	54	12	100
	2014-15	186181/18717*	57	10	100
Ph.D	2010-11	07	0		
	2011-12	17	3		
	2012-13	18	2		
	2013-14	21	3		
	2014-15	12	1		

33. Diversity of students:**34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

UPSC Civil Services : 05 (Top Rank Holders only)
 Defence Services : 02
 NET : 04
 SET : 02
 GATE : Not Applicable

Other Competitive Examinations: Details not available

Some of our students continue in research, beyond their Ph.D., and do not opt for competitive examinations. Most of them qualify the UGC-CSIR NET examination during their Ph.D. tenure, since it provides an added qualification when applying for faculty positions later.

Large number of our students pursues higher studies either immediately after graduation or after working for two or three years in the corporate world.

35. Student progression

Student progression	Percentage against enrolled
UG to PG*	10
PG to M.Phil.	00
PG to Ph.D.	04
Ph.D. to Post-Doctoral	00
Employed	
☐ Campus selection	70
☐ Other than campus recruitment	12
Entrepreneurs	06

*Approximately 10 % of students pursue PG outside the University. But department does not maintain any record.

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	50
from other universities within the State	0
from universities from other States from universities outside the country	50

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:

- ❖ Two (2) Faculty members of our department worked for their doctoral degree during the assessment period and were awarded Ph.D. degree.
 - ❖ Dr. Smita Kashiramka Ph.D. (2012)
 - ❖ Dr. Arun Kumar Vaish Ph.D. (2013)

38. Present details of departmental infrastructural facilities with regard to

i) Library :

Yes. Central Library.

Department staff and students use central library facilities. Department level library committee members are part of the Institute's library committee. These members will do the requirement analysis and suggest the requirements from

time to time to the librarian.

j) Internet facilities for staff and students:

Yes. Internet facilities are provided to the staff and students round the clock. These facilities for faculty are not only available at their chambers but even available at staff quarters also. For the students facilities are available at their hostel rooms. They are all in addition to some central facilities made available at IPC and other labs.

k) Students' laboratories:

Yes. Department has a central computational laboratory which is equipped with 34 desktop computers with important statistical and econometric softwares.

l) Research laboratories: NIL

39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university

Doctoral:

S.No.	Name of the Research Scholar	Institution
1	Rajan Pandey	BITS Pilani, Pilani
2	Madhu Sehrawat	BITS Pilani, Pilani
3	Varun Chotia	BITS Pilani, Pilani
4	Aditya Sharma	BITS Pilani, Pilani
5	Vaibhav Shastri	BITS Pilani, Pilani

- from other institutions/universities

S.No.	Name of the Research Scholar	Institution
1	Mohit Alim Chandani	Thapar University, Patiala, Punjab
2	Pooja Joshi	Rajasthan Technical University, Rajasthan
3	Rashpal Kaur	Punjab University, Punjab
4	Shruti Shastri	Bannasthali University, Rajasthan

40. Number of post graduate students getting financial assistance from the university.

As per institute's scholarship policy, 65 percentage of our students are getting institute Merit-Cum-Need Scholarships and around 5 percentage are getting scholarship from various sources like; Alumni scholarship, National Agencies scholarships etc.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

- ❖ Curriculum workshops are organised with experts from Institute Faculty members from other BITS PILANI campuses and also experts from IITs, NIPFP, DSE, Central Universities and Alumni working in Economics and Finance Organisations and R&D Industries. Curriculum was developed based on the feedback received from these workshops.
- ❖ M.Sc. (Hons.) Program is structured in such a way that first year is devoted to learning

basics in all branches of Science, Mathematics and includes several Applied and Analysis oriented courses. Second year is devoted for learning fundamental economics and finance courses that provide in-depth knowledge in each subject with a dedicated project in the subsequent semesters.

42. Does the department obtain feedback from

- i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, the Department evaluates the curriculum and teaching learning methodology every semester. The feedback of the faculty members is discussed in the faculty meetings and implemented in the syllabus.

- ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes, The Institute's Instruction Division (ID) obtains feedback from the students on faculty and shares with department faculty, specifically about instruction methodology, course curriculum and teaching-learning-evaluation. Based on the feedback given by the students, the teaching, learning and evaluations methods are improved.

- iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Yes, The department interacts with the alumni and takes feedbacks regarding course structure and course offerings. It helps in improving the course structure and curriculum.

43. List the distinguished alumni of the department (maximum 10)

As for as BITS Economics students, they are in various reputed Universities & Business Schools, Government Organisations, World Bank, United Nations, Multi-National Corporations and working as entrepreneurs across the globe .

S. No	Name	Job Title	Area
1	Pingali Prabhu	Director, Agriculture and Development Economics Division, FAO, United Nations Italy, Rome	Agriculture and Development Economics
2	Sanjiv Sawhney	Managing Director Head of Global Custody and Alternative Investor Services Markets and Securities Services Citi , London, United Kingdom	Custody and Fund services
3	K. S. Viswanathan	Vice President NASSCOM India (Associated with the establishment of Azim Premji University, India)	Business and Consultancy

4	Madhu Kannan	Youngest CEO of Asia's oldest bourse BSE, Mumbai and Now Joined TATA SONS, India	Finance and Business
5	Uday Sareen	President & Member, Operating Management Committee Kotak Mahindra Bank India	Banking & Financial Institutions
6	Ramana Mulpuray	President OpsDynamics, USA Co-founder & CTO MetricStream, USA	Entrepreneur Software Products, Services and Technology Executive,
7	Samonnoi Banerjee	Principal of Bain Capital Private Equity Financial & Business Services; Healthcare, BAIN CAPITAL Mumbai, India	Finance and Private Equity
8	Sumanth Addanki	Senior Vice President NERA Economic Consulting USA	Economic Consulting NERA Economic Consulting is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges
9	Shantanu Dutta	Former World Bank Economist And now Professor Dave & Jeanne Tappan Chair in Marketing Marshall School of Business University of Southern California, USA	Academician
10	Satheesh Kumar T	Indian Economic Service Assistant Director, Ministry of Power Government of India India	Indian Economic Service and Government Service

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

S No	Resource Person	Special Lecture	Year
1	Prof. Sanjay Ramchander, Colorado University	Business Analysis and Valuation	2011
2	Prof Sanjay Banik, IFMR	European Crisis	2012
3	Dr. Ambarish Dutta, Bombay Stock Exchange	BSE training and Trading	2012
4	Dr. Tarun Jain, Indian School of Business, Hyderabad	Impact of Study Group and Residential Peers on Academic Performance	2013
5	Mr Vijay IAS, Mr. Rakesh Kumar IAS & Ms. Naga Lakshmi IAS	How to Prepare well in Civil Service Examination?	2014
6	Mr. Sanjay Anand, Chairperson at Sarbanes Oxley Group LLC	Corporate Governance	2014
7	Mr. Vinay Pratap Singh IAS	Urbanization: Problems and Prospects	2015
8	Prof. Krishna Sundar IIM Bangalore	Student Development	2015

45. List the teaching methods adopted by the faculty for different programmes.

- Regular class room teaching with Chalk and Board - Lecture Method
- Multimedia Instruction
- The Institute has provided every faculty member with a laptop for use in the classroom. All the electronic and non-electronic resources available in the

department/Library/open source material are regularly used by the faculty members in their teaching.

- The department's Computer Lab is equipped with 20 State of the art Computers and internet connectivity. The lab is utilized to provide hands on practice to students using the latest software for obtaining data and information followed by analysis.
- Thought Provoking Home Assignments.
- The case study method of learning is utilized in courses with quantitative as well as qualitative content. This includes discussion sessions on selected topics based on relevant articles from the latest journals, periodicals and daily publications like Economic Times.
- Students are regularly required to make presentations on topics from the relevant course which enables them to gain proficiency in the subject matter as well as motivates them to critically analyze the issues pertaining to the course under study.
- Field / industry visits are organized for students to enable them to obtain first hand information and data on economic aspects of society.
- Student Project Report preparations and Presentations.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- The Department strives towards overall development of students and quality enhancement of learners through various aspects of holistic personality development, orientation programs and life skill enrichment programs conducted during their period of studies that focuses on communication skills, leadership qualities, analytical skills, etiquettes and awareness programmes on environment.
- Every faculty member is supposed to provide Goal Setting in the beginning of the year. The department follows the practice of weekly meeting of all faculty members to continuously review and suitably modify the programme objectives. The objectives and goals by each individual faculty member are set well in advance.
- The continuous evaluation system comprised of regular tests, quizzes including unannounced quizzes and assignments followed for each and every course enables the department to ensure that the programme objectives are met and that the learning outcomes are monitored. The faculty discusses these issues during the regular meetings and corrective action is taken in this regard, whenever called for.
- Apart from the formal feed-back every semester for each course, the Student-Faculty Council ensures that the faculty receives regular feed-back from the students enabling them to mitigate their deficiencies and to take corrective action.
- Interaction with the professionals from corporate houses, industry executives, alumni in monitoring and revising the course curriculum
- Interaction with recruiter and Alumni about our student performances in their companies.

47. Highlight the participation of students and faculty in extension activities.

- Students and faculty members participated in University Annual cultural technical and sports meet.
- Students and faculty members participated in Swatch Bharath Abhiyan in the campus and outside

- Economics Quiz: Monopoly
- Virtual Stock market Games: Mock Stock
- Gurukul: Presentation by Seniors
- BITS-O-POLY: APOGEE (An Annual Academic Festival of BITS Pilani)
- BITS FANTASY - APOGEE (An Annual Academic Festival of BITS Pilani)
- Stock Market Simulation Games
- Wall Street Club Activities – Preparing equity research report, money investment in stock market
- BITS MUN – BITS Model United Nations

48. Give details of “beyond syllabus scholarly activities” of the department.

- students need to undertake internship and dissertation work at various reputed institutions / industrial organization in India and abroad like London School of Economics, National University of Singapore, MITACS – Global Link, Canada, DAAD, Germany, IIMs and IITs,
- Community work through outreach programme in NGOs like; GUNJ, NIRMAN and NSS activities

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- The learner centric approach is ensured through student seminars, assignments, project work etc.
- Faculty Publications in refereed journals. Making students a part of the research done by the faculty.
- Innovative Student Projects with new ideas as part of curriculum. Summer project for Students on present day problem like Global warming, Financial Crisis, Poverty eradication programme, Social security measures etc.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths	Weaknesses
<ul style="list-style-type: none"> • The academic focus, involving classroom lectures and projects, student-faculty interactions is of high standard. • The infrastructural facilities, including computing resources, internet access, library, power backup, and housing are excellent. • Students are the real strength as the department attracts some academically brilliant students who have been selected based on a national level competitive online entrance exam, BITSAT. 	<ul style="list-style-type: none"> • Getting quality faculty is big challenge • Improvement or upgradation of lab facilities needed • Lack of funded projects. • Less number of International Conferences and Symposiums. • Lack of interdisciplinary programmes and research. <ul style="list-style-type: none"> •

<ul style="list-style-type: none"> • Practice School (University-Industry linkage) Program is also strength for the department as the students get a feel of the corporate world. • Enormous scope for interdisciplinary exposure and research 	
<p>Opportunities</p> <ul style="list-style-type: none"> • Faculty members and students can venture into interdisciplinary areas if they so wish. • Organizing National and International Conferences, Corporate trainings. • Knowledge portal. • Potential to be a mentor institution in the region/state. • National and International collaborations with exchange programs. 	<p>Challenges</p> <ul style="list-style-type: none"> • Maintaining a leadership position despite the small size, and the fluctuations that arise due to faculty attrition. • Meeting increasing needs of student in terms of demand for new courses and training students beyond academics. • Industry requirement based updation of syllabi. • Faculty retention, attracting best faculty with good experience and domain expertise. • To attract potential industry fellows into academics.

52. Future plans of the department.

The department has the following plans for future development

- To provide state-of the-art research facilities to our students in their areas of interests and specialization.
- Undertaking collaborative efforts with other Economics and Finance research centres in India and abroad.
- To respond to the needs of the Industry through consultancy projects and work for industry collaborative research projects.
- Looking for introducing certificate programmes/courses in the emerging areas relevant to the department
- To become the one of the leading Economics and Finance departments in the country by providing highest standards of quality education and continue to maintain and improve upon the values of Academic Excellence, Integrity and Transparency
- Having classroom interaction with experts from international universities

53. Any other information regarding your department which you would like to include.

- Prof. Arya Kumar Was the Chief Guest and delivered a key note address in the seminar on "Why Entrepreneurship and How to Become an Entrepreneur?" organized by Jaypee Institute of Information Technology, Noida on 30th October, 2010.

- Prof. Arya Kumar delivered three invited talks on entrepreneurship to the participants of the Executive Post Graduate Programme organized by Indian Institute of Foreign Trade, New Delhi, between August and October 2010.
- Prof. Arya kumar was invited to engage special session in the Tools for Growth programme organised by NEN for the benefit of entrepreneurs in New Delhi between 13-15th Nov. 2010
- Prof. Arya Kumar delivered a key note talk in the workshop on “Problems and Prospects of Emerging Women Entrepreneurs” organized by IIT Roorkee on 5th December 2011.
- Prpf. Arya Kumar delivered invited talk on “Entrepreneurship and Innovation” on 11th February 2011 at Vivekananda Institute of Technology (VIT) Jaipur during Entrepreneurship Week organized by them between 5th -12 th February 2011.
- Prof. Arya Kumar was Expert member to be part of panel for panel Discussion on ‘Innovation is Polycentric’ organized during International Conference on Entrepreneurship and Innovation – A New Age Mantra organized by Jagan Institute of Management Studies on 5th February 2011 at PHD Chambers of Commerce and Industry, New Delhi.
- Prof Arya Kumar delivered a talk to all faculty members of VIT, Jaipur on 9th April 2012 on “ Higher Education in India – Challenges Ahead”
- Prof N V M Rao was Expert member to be part of panel for Panel Discussion on " Next Generation Data Centre - Cost Challenges” organised by Express Computer, Indian Express Group, Intel, Microsoft and Dell at Marriott Hotel, Goa, India. Feb 2011.
- Prof. N V M Rao, Invited Speaker, CSIR Programme on 'Youth for Leadership in Science' - CPYLAS - 2010, CPYLAS - 2011, CPYLAS - 2012, CPYLAS - 2013, CEERi Pilani
- Prof. N V M Rao, Invited Speaker, CSIR CVR Workshop for Students & Teachers, Transformation in Science and Technology Programme, 2015
- Prof. N V M Rao, Session Chair, Capital Markets, International Conference on Evidence Based Management (ICEBM) 2015

Pilani Campus: Evaluative Report of the Department

ELECTRICAL AND ELECTRONICS ENGINEERING

1. Name of the Department : Electrical and Electronics Engineering

2. Year of establishment of the Department: 1964

3. Is the Department part of a School/Faculty of the university? :

Departments function as independent entities in the university and are not part of any school or faculty.

4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).

Sr. No.	Level	Programmes Offered
1.	UG	B.E. (Hons.) Electrical and Electronics Engineering
		B.E. (Hons.) Electronics and Instrumentation Engineering
		B.S. Power Engineering
2.	PG	M.E. Communication Engineering
		M.E. Embedded Systems
		M.E. Microelectronics
		M.E Electrical (Power Electronics and Drives)
		M.S. Microelectronics
		M.S. Embedded Systems
3.	Ph. D.	--

5. Interdisciplinary programmes and departments involved :

Sr. No.	Interdisciplinary Programmes	Department Involved
1	M.E. Embedded Systems	Computer Science Electrical and Electronics

6. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr. No	Academic Session	Degree	Programme Name	Level	No. of Students	
					Enrolled	Pass out
1	2010-F	M.S.	(Embedded Systems)	PG	29	23
2	2010-F	M.S.	(Microelectronics)	PG	86	74
3	2010-S	B.S.	(Power Engineering)	UG	127	117
4	2011-S	M.S.	(Embedded Systems)	PG	92	69
5	2011-S	M.S.	(Microelectronics)	PG	44	36
6	2012-F	B.S.	(Power Engineering)	UG	50	50
7	2012-S	B.S.	(Power Engineering)	UG	32	NA
8	2012-S	M.S.	(Embedded Systems)	PG	38	35
9	2012-S	M.S.	(Microelectronics)	PG	123	81
10	2013-F	M.S.	(Microelectronics)	PG	39	31
11	2013-S	B.S.	(Power Engineering)	UG	98	NA
12	2013-S	M.S.	(Embedded Systems)	PG	15	NA
13	2013-S	M.S.	(Microelectronics)	PG	31	NA
14	2014-F	B.S.	(Power Engineering)	UG	51	NA
15	2014-S	M.S.	(Embedded Systems)	PG	69	NA
16	2014-S	M.S.	(Microelectronics)	PG	29	NA

7. Details of programmes discontinued, if any, with reasons : No

8. Examination System:: Semester and Choice Based Credit System

9. Participation of the department in the courses offered by other departments

Sr. No.	Programmes	Offering Department
1	Computer Architecture (CS F342)	Computer Science
2	Object Oriented Programming (CS F213)	Computer Science
3	Operating Systems (CS F372)	Computer Science
4	Reconfigurable Computing (CS G553)	Computer Science

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	4	4
Associate Professors		4	4
Asst. Professors		12	12
Others		17	17

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sr. No.	Name	Qualification	Designation	Specialization	No. of years of Experience	No. of Ph D Students Guided for last 4 years
1.	Dr. Man Mohan Singh Anand	Ph. D.	Professor	Data Acquisition and Control Systems	41	0
2.	Dr. S Gurunarayanan	Ph. D.	Professor	Computer Architecture and VLSI Design	25	2
3.	Dr. V K Chaubey	Ph. D.	Professor	Optical Communication and Wireless Network	22	2 +4(ongoing)
4.	Dr. Surekha Bhanot	Ph. D.	Professor	Artificial Intelligence Techniques in Process Modeling Control, Biomedical Signal	37	2 +3(ongoing)
5.	Dr. Anu Gupta	Ph. D.	Associate Professor	Low Power Mixed Signal Design, FPGA implementation	21	0 +3(ongoing)
6.	Dr. Hari Om Bansal	Ph. D.	Associate Professor	Power Systems and application of AI techniques, Control System	16	0 +1 (ongoing)

7.	Dr. Hitesh Datt Mathur	Ph. D.	Associate Professor	Power System Operation and Control, AI techniques in Power System Optimization	16	0 +1(ongoing)
8.	Dr. Navneet Gupta	Ph. D.	Associate Professor	Device Modeling (Semiconductor and MEMS), Computational Material Science and Electromagnetics	17	2 +3(ongoing)
9.	Dr. Dheerendra Singh	Ph. D.	Assistant Professor	Drives and Control, Power Electronics base Energy System	21	1
10.	Dr. Karunesh Kr Gupta	Ph. D.	Assistant Professor	Control and Instrumentation, Image Processing	20	0 +3(ongoing)
11.	Dr. Rajneesh Kumar	Ph. D.	Assistant Professor	Power Electronics and Renewable Energy	15	0 +2(ongoing)
12.	Dr. Abhijit Rameshwar Asati	Ph. D.	Assistant Professor	VLSI, Digital Design, ASIC	15	0 +4(ongoing)
13.	Dr. Praveen Kumar A.V	Ph. D.	Assistant Professor	Radio Frequency and Microwave Engineering, Antennas, Cavity resonators	02	0 +1(ongoing)
14.	Dr. Rahul Singhal	Ph. D.	Assistant Professor	Communication Devices and Components	15	0 +1(ongoing)
15.	Dr. Pradyumn Chaturvedi	Ph. D.	Assistant Professor	Power Electronics and Drives	14	1 +2(ongoing)
16.	Dr. Avik Chattopdhyay	Ph. D.	Assistant Professor	Electron Device, Microelectronics	01.5	0
17.	Dr. Anantha Krishna Chintanpalli	Ph. D.	Assistant Professor	Biomedical Signal Processing, Digital Signal Processing, Speech Processing and Perception Auditory models	3.5	0
18.	Mr. Sainath Bitragunta	Ph. D.	Assistant Professor	Communication System: Design, Modeling, analysis	06	0
19.	Dr. Arnab Hazra	Ph. D.	Assistant Professor	Electronic Devices, Nanomaterials, Graphene, Chemical Sensor, Resistive RAM	01	0
20.	Dr. Pawan K. Ajmera	Ph. D.	Assistant Professor	Digital Signal Processing, Speech Signal Processing, Biometrics	10.5	0 +1(ongoing)
21.	Mr. Nitin Chaturvedi	M. Tech.	Lecturer	VLSI Design	10	0
22.	Mr. Meenakshi Sundaram G	M. E.	Lecturer	RF MEMS Filters, Resonators	09.5	0
23.	Mr. Srinivasa Reddy K	M. Tech.	Lecturer	VLSI DSP, Signal Processing Architectures	08.5	0
24.	Mr. A Ananda Kumar	M. Tech.	Lecturer	Power Electronics	08.5	0
25.	Mr. Parikshit Kishor Singh	M. Tech.	Lecturer	Computational Intelligence Techniques in Process Control and Optimization	10	0
26.	Mr. Mahesh Angira	M. Tech.	Lecturer	MEMS	09	0
27.	Mr. Vineet Kumar	M. Tech.	Lecturer	Image Processing, Hardware design for Image Processing	07	0
28.	Mr. Ashish Mishra	M. E.	Lecturer	FPGA, Hardware/Software Code design	11.5	0

29.	Miss. Vinita Tiwari	M. E.	Lecturer	High Speed Optical Communication, Advance Modulation Formats	08	0
30.	Mrs. Lucky Sharan	M. E.	Lecturer	DWDN Networks, Advance Optical Modulation Formats, Non-linear Optics	07	0
31.	Mrs. Snehlata Murotiya	M. E.	Lecturer	Microelectronics, Digital VLSI	07	0
32.	Mr. Devesh Samaiya	M. Tech.	Lecturer	Visual Information Processing, Embadded Systems	02	0
33.	Mr. K. Babu Ravi Teja	M. Tech.	Lecturer	VLSI Design, Semiconductor Devices	01	0
34.	Mr. Harshavardhan S.	M. Tech.	Lecturer	Signal Processing, Communication	02	0
35.	Mr. G Sai Sessa Chalapathi	M. E.	Lecturer	Embadded Systems and Wireless Sensor Networks	06	0
36.	Mr. Kavindra Kandpal	M. Tech.	Lecturer	VLSI Design, Semiconductor devices	02	0
37.	Mr. Ashish Patel	M. Tech.	Lecturer	Energy management in Microgrids with renewable energy	01.5	0

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors : Nil

13. Percentage of classes taken by temporary faculty – program wise information?

- First Degree: NIL
- Higher Degree: 100% classes of one course/sem., solely managed by guest faculty from CEERI-CSIR, Pilani

14. Program- wise Student Teacher Ratio

- First Degree: (From 2010 to 2015) 21:1
- Higher Degree: (From 2010 to 2015) 5:1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled, and actual

Staff Members	Sanctioned Number	Actual Number	Filled Number
Administrative	4	4	4
Academic(Technical)	2	2	2

16. Research thrust areas as recognized by major funding agencies.

- Development of renewable energy based grid connected / stand alone systems.
- Material Science.
- Radio Frequency/ Micro Wave Communications
- Micro Electronics –circuits design and their testing.

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise

Completed Projects

Sl. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount(Lacs)	Duration

1	Study of electrical behavior of Nano-crystalline Silicon Thin-Film Transistor (nc-TFT)	Dr. Navneet Gupta	University Grant Commission.	0.8	1 Yr.
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Ongoing Projects

SI No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount(Lakhs)	Duration
1	Design and development of an efficient soft switching converter with adaptive maximum power point tracker (MPPT) controller for a standalone photovoltaic power generation system	Dr. Rajneesh Kumar	Ministry of New and Renewable Energy (MNRE), New Delhi, Govt. of India,	29.39	2 years (2014-16)

18. Inter-institutional collaborative projects and associated grants received

- National collaboration----- Nil
- International collaborations----- Nil

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sl. No	DST-FIST	UGC-SAP/CAS	DPE	DBT	ICSSR	AICTE	Total Grants Received
1	1(2013)	1 (2011)	-	-	-	-	138.8 Lacs

20. Research facility / centre with

- We assume that our all facilities are recognized at state/national & international level

21. Special research laboratories sponsored by / created by industry or corporate bodies: NIL

22. Publications:

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	100
2	Monographs	0
3	Chapters in Books	3
4	Edited Books	9
5	Books with ISBN with details of publishers	6
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	96
7	Citation Index – range / average	40 ---- 273
8	SNIP	
9	SJR	
10	Impact Factor – range / average	0.1—4
11	h-index	4 --- 7

Total number of Conference papers published (in last five years) = 89

Details of the publications as per the number given above (Give details in the last five years)

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Nitin Chaturvedi, Aun S, S Gurunaryanan	"An Adaptive Migration-Replication Scheme (AMR) for Shared Cache in Chip Multiprocessors	The Journal of Supercomputing, Springer Volume 71, Issue 10 (2015), Page 3904-3933	International	2015
2	Nitin Chaturvedi, S Gururnarayan an	An Efficient data access policy for shared last Level Cache	WSEAS transaction on computers 14(5), pp.38-48, 2015.	International	2015
3	Nitin Chaturvedi, S Gurunaryanan	An Efficient block pinning for multi-core architectures	Journal of Microprocessor and Microsystems, Elsevier 39(3), pp.181-188, 2015	International	2014
4	Nitin Chaturvedi, Arun S, S Gururnarayan an	Selective cache line replication scheme in Shared Last Level Cache	Procedia of Computer Science, Elsevier pp.1095-1107, 2015.	International	2014
5	Jitendra Kumar and Navneet Gupta	Linearly Polarized Asymmetric Dielectric Resonator Antennas for 5.2 GHz WLAN Applications	Journal of Electromagnetic Waves and Applications Taylor & Francis, UK Published online: DOI: 10.1080/09205071.2015.1038362	International	2015
6	Jitendra Kumar and Navneet Gupta	A Comparative Study of Different Feeding Mechanisms for Dielectric Resonator Antennas	The IUP J. of Telecommunications" IUP Publications, India vol. VII, pp. 39-47, 2015.	International	2015
7	Navneet Gupta and Abhinav Mishra	Material Selection Methodology for Minimizing Direct Tunneling in Nanowire Transistors	J. Electron Dev., Perpignan University, France 1811-1815, vol. 21, (2015).	International	2015
8	Ashish Sharma K and Navneet Gupta	An Improved Design of MEMS Switch for Radio Frequency Applications	Int. J. of Applied Electromagnetics and Mechanics, IOS Press, Japan vol. 47, pp. 11-19, 2015.	International	2015

9	Jitendra Kumar and Navneet Gupta	Investigation on Microwave Dielectric Materials for Dielectric Resonator Antennas	Int. J. of Applied Electromagnetics and Mechanics" IOS Press, Japan vol. 47, pp. 263-272, 2015	International	2015
10	Priyanka Choudhary, R Kumar and Navneet Gupta	Dielectric Material Selection of Microstrip Patch Antenna for Wireless Communication Applications using Ashby's Approach	Int. J. of Microwave and Wireless Technologies, Cambridge Univ. Press and European Microwave Association doi: 0.1017/S1759078714000877	International	2014
11	Prachi Sharma and Navneet Gupta	Threshold Voltage Modeling on Nanocrystalline Silicon Thin-Film Transistors	J. Electron Dev., Perpignan University, France 1608-1612, vol. 19, (2014)	International	2014
12	Ashish K. Sharma and Navneet Gupta	Investigation of Actuation Voltage for Non-Uniform Serpentine Flexure Design of RF-MEMS Switch	Microsystem Technologies: Springer-Verlag Berlin vol 20, issue 3, 413-418, March 2014	International	2014
13	Jitendra Kumar and Navneet Gupta	Performance Analysis of Dielectric Resonator Antennas"	Wireless Personal Communications Springer-Verlag Berlin vol 75, 1029-1049, March 2014	International	2014
14	Abhishek Mukherjee, Prachi Sharma and Navneet Gupta	Modeling of Field Effect Mobility using Grain Boundaries on Nanocrystalline Silicon Thin-Film Transistors	Journal of Nano- and Electronic Physics, Sumi State University, Ukraine vol. 5, 4054-4056, (2013).	International	2013
15	Ashish K. Sharma and Navneet Gupta	Electromagnetic Modeling and Parameter Extraction of RF-MEMS Switch"	Microsystem Technologies: Springer-Verlag Berlin DOI:10.1007/s00542-013-1952-3	International	2013
16	Ashish K. Sharma and Navneet Gupta	Analytical Modeling for Spring Constant of Non-Uniform Serpentine Radio Frequency-Micro Electro Mechanical System Switch	Advanced Science, Engineering and Medicine, American Scientific Publishers 5 (12), 1322-1325, (2013).	International	2013
17	A.K.Sharma and Navneet Gupta	Microelectromechanical System (MEMS) Switches for Radio Frequency Applications- A Review	Sensors and Transducers 11-21, vol. 148, 2013	International	2013
18	A.K.Sharma and Navneet Gupta	Material Selection of RF-MEMS Switch used for reconfigurable antenna using Ashby's methodology	Progress in Electromagnetics Research Letters (PIER-L) 147-157, vol. 31 (2012)	International	2012

19	B.N.Aditya and Navneet Gupta	Material Selection methodology for gate dielectric material in metal-oxide-semiconductor devices'	Materials and Design, Elsevier Journal 696-700, vol. 35 (2012)	International	2012
20	S.Subramanian and Navneet Gupta	Sensitivity to overetching of improved V-shaped microcantilever	Advanced Material Research Journal 3326-3329, vol. 403 (2012).	International	2012
21	Navneet Gupta and Shakti P. Tripathi	Modeling of spring constant and pull-in voltage of T-shaped radio frequency microelectromechanical (RF-MEMS) cantilever switch	Sensors and Transducers 80-89, vol. 135, 2011	International	2011
22	Navneet Gupta	Material Selection for thin-film solar cells using multiple attribute decision making approach	Materials and Design, Elsevier Journal 1667-1671, vol. 32 (2011)	International	2011
23	Ojasvita Parate and Navneet Gupta	Material Selection for Electrostatic microactuators using Ashby Approach	Materials and Design, Elsevier Journal 1577-1581, vol. 32 (2011)	International	2011
24	G.Prashant Reddy and Navneet Gupta	Material Selection for Microelectronic Heat Sinks: An Application of the Ashby Approach	Materials and Design, Elsevier Journal 113-117, vol. 31 (2010)	International	2010
25	V. Tiwari, D. Sikdar, M. N Jyothi G. Dixit, V.K.Chaubey	Investigation of optimum pulse shape for 112 Gbps DP-DQPSK in DWDM transmission	Optik - Int. J. Light Electron Opt. 124pp. 5567-5572.	International	2013
26	Vinita Tiwari, Debabrata Sikdar, V K Chaubey	Performance Optimization of RZ-DQPSK Modulation Scheme for Dispersion Compensated Optical Link	Optik (Elsevier) 124 (17), 2593-2596	International	2013
27	Debabrata Sikdar, Vinita Tiwari, V.K. Chaubey	Optimized transmitter module for NRZ-duobinary in long-haul optical transmission link	Optik (Elsevier) 124 (17), 2597-2601	International	2013
28	Debabrata Sikdar., Vinita Tiwari, Yajnaseni Saha, V.K. Chaubey	Investigation of modulator chirp and extinction ratio in different RZ- and NRZ duobinary transmitter modules for performance optimization	Optik (Elsevier), 124 pp. 1411-1414	International	2013

29	Debabrata Sikdar, Vinita Tiwari, V K Chaubey	Investigation of RZ and NRZ pulse shape for optimum Duobinary transmission at 40Gbps	Optik (Elsevier) 124 pp. 1148-1151	International	2013
30	Debabrata Sikdar, Vinita Tiwari and V K Chaubey	Optimum Dispersion Map Profile for a Stable DM Soliton System	Journal of Mod. Optics (Taylor & Francis), Volume 59, Issue 16, September 2012, pages 1396-1405	International	2012
31	Virendra Singh Shekhawat, Amrit Kumar Saini and V K Chaubey	Traffic Modeling of Ring and Mesh Networks with Improved Quality of Service	The IUP Journal of Telecommunications India. Vo. IV,no.3,August 2012, pp.31-43	National	2012
32	Manoj Kumar Dutta , V.K. Chaubey	Modeling and performance analysis of optical WDM node architecture using SRR protocol	Optik (Elsevier)123, issue 21, pp.1971-1974.	International	2012
33	M K Dutta & V K Chaubey	Performance Analysis of Modified Optical Burst Switching (OBS) Ring Network using Dummy Node	Optik (Elsevier) 123 , issue 20, pp.1847-1851.	International	2012
34	Vinita Tiwari, Debabrata Sikdar, V.K. Chaubey	SPM induced limitations for 40 Gbps chirped Gaussian pulses in optical channel	(Elsevier) Volume 123, Issue 16, August 2012, Pages 1482–1485	International	2012
35	Manoj Kumar Dutta,V.K. Chaubey	Comparative Analysis of Wavelength Conversion and Segmentation Based Dropping Method as a Contention Resolution Scheme in Optical Burst Switching (OBS) Network	Procedia Engineering(Elsevier) Vol.30, pp. 1089 – 1096	International	2012
36	Debabrata Sikdar, Saurabh Chaubey, Vinita Tiwari and V K Chaubey	Simulation and Performance Analysis of Duobinary 40 Gbps Optical Link	Journal of Mod. Optics (Taylor & Francis), 59, No. 10, 903–911	International	2012
37	Manoj Kumar Dutta, V.K. Chaubey	Modeling and Characterization of Modified Optical Burst Switching (OBS) Ring Network Using Proxy Node	International Journal of advance Science Engineering Information Technology, Vol. 2, No. 1, pp. 75-79	International	2012
38	Virendra S. Shekhawat, D.K. Tyagi, V.K. Chaubey	Design and characterization of a modified WDM ring network – An analytical approach	Optik (Elsevier) 123,issue 12,pp.1103-1107	International	2012

39	Abhishek Jain, Mitesh Kumar and V K Chaubey	Traffic Modeling of Ring and Mesh Networks with Improved Quality of Service	The IUP Journal of Telecommunications India , August 2011, pp.7-20	National	2011
40	V K Chaubey and Rakesh Kumar jain	Matlab Modeling and Simulation of a WiMAX System	The IUP Journal of Telecommunications India, May 2011, pp.15-22	National	2011
41	Manoj Kumar Dutta, Vinod Kumar Chaubey	Design and Simulation of Intelligent Optical WDM Switching Node Based on Erlang Traffic Model	Int. J. Communications, Network and System Sciences 3, pp. 563-568	International	2010
42	Virendra Singh Shekhawat, Mahesh Lagadapati, Dinesh Tyagi, and V.K.Chaubey	A novel Aggressive Intermediate-node Initiated Reservation (AIIR) Protocol for Wave length Routed Optical WDM Networks	IJRTE Vol. 3, No. 1, 2010, pp. 126-128	International	2010
43	Manoj Kr. Dutta and V.K. Chaubey	Performance Analysis of All-Optical WDM Network with Wavelength Converter Using Erlang C Traffic Model	Springer-Verlag Berlin Heidelberg CCIS 70, pp. 238–244, 2010.	International	2010
44	Parikshit Kishor Singh, Surekha Bhanot, Hare Krishna Mohanta	Particle Swarm Optimization based Fuzzy Logic Control of pH Neutralization Process	Int. Journal of Applied Engineering Research. Vol no. 10, Special Issue no. 63, Page no. 211-215, June 2015.	National	2015
45	Yogesh Krishan Bhatshvar, Hitesh Datt Mathur, Houria Siguerdidjane & Surekha Bhanot	Frequency Stabilization for Multi-area Thermal–Hydro Power System Using Genetic Algorithm-optimized Fuzzy Logic Controller in Deregulated Environment	Electric Power Components and Systems. Volume 43, Issue 2, 2015.	International	2015
46	Parikshit K. Singh, Surekha Bhanot, Hare Krishna Mohanta	Genetic Optimization based Adaptive Fuzzy Logic Control of a pH Neutralization Process	Int. Journal of Control and Automation. Volume no. 7, Issue no. 11, Page no. 233-248, November 2014.	International	2014
47	Parikshit K. Singh, Surekha Bhanot, Hare Krishna	Optimized and Self-Organized Fuzzy Logic Controller for pH Neutralization Process	Int. Journal of Intelligent Systems and Applications. Vol. 5, Issue no. 12, Page no. 99-112, November 2013.	International	2013

	Mohanta				
48	Parikshit K. Singh, Surekha Bhanot, Hare Krishna Mohanta	Neural Control of Neutralization Process using Fuzzy Inference System based Lookup Table	Int. Journal of Computer Applications. Volume no. 61, Issue no. 9, Page no. 16-22, January 2013.	International	2013
49	Sneh Lata Murotiya and Anu Gupta	Design of hardware efficient low power 2-bit Ternary ALU using CNTFETs	Journal of Electronics, Taylor & Francis	International	2015
50	Sneh Lata Murotiya and Anu Gupta	A Novel Design of Ternary Full Adder using CNTFETs	Arabian Journal of Science and Engineering, springer DOI 10.1007/s13369-014-1350-x	International	2014
51	Sneh Lata Murotiya and Anu Gupta	Design of content-addressable memory cell using CNTFETs	Int. Journal of Electronics Letters, Taylor & Francis DOI:10.1080/21681724.2014.911368	International	2014
52	Sneh Lata Murotiya and Anu Gupta	Design of CNTFET based 2-bit ternary ALU for nano-electronics	Journal of Electronics, Taylor & Francis DOI: 10.1080/00207217.2013.828.	International	2013
53	Sneh Lata Murotiya and Anu Gupta	Design of CNTFET-based Radiation hardened Latches	European Journal of Scientific Research	International	2013
54	Y.K. Bhatshvar, H.D. Mathur and Houria Siguerdjane	Study of Impact of Wind Power Generating System Integration on Frequency Stabilization in Multi-area Power System with Fuzzy Logic Controller in Deregulated Environment	Frontiers in Energy (Springer), Vol. 9, Issue 1, pp. 7-21, 2015	International	2015
55	Y.K. Bhatshvar, H.D. Mathur	Power–frequency balance with superconducting magnetic energy storage using optimized intelligent controller	Energetika, Vol. 60, No. 3, pp. 149-161, 2014	International	2014
56	H.D. Mathur	Fuzzy Based HVDC Regulation Controller for Load Frequency Control of Multi-Area System	International Journal of Computer Aided Engineering and Technology, Vol. 4, No. 1, 2012, pp. 72-79	International	2012
57	Yogendra Arya, Narendra Kumar and H.D.Mathur	Automatic Generation Control in Multi Area Interconnected Power System by using HVDC Links	International Journal of Power Electronic Drives and System, Vol. 2. No. 1, March 2012.	International	2012

58	Yogendra Arya, H.D.Mathur and S.K.Gupta	A Novel Approach for Load Frequency Control of Interconnected Thermal Power Stations	International Journal of Energy Optimization and Engineering, Vol. 1, Issue 2, 2012, pp. 85-95.	International	2012
59	M. Tazil, Vinod Kumar, R. C. Bansal, S. Kong, Z.Y. Dong, W. Freitas and H.D. Mathur	Three-Phase Doubly-Fed Induction Generators: An Overview	IET Electric Power Applications, Volume 4, Issue 2, February 2010, pp. 75-89	International	2010
60	A Panday and H O Bansal	A review of optimal energy management strategies for hybrid electric vehicle	International Journal of Vehicular Technology" Vol. 2014, Article ID 160510, 19 pages, http://dx.doi.org/10.1155/2014/160510	International	2014
61	A Panday and H O Bansal	Green Transportation: Need, Technology and Challenges	Int. J. Global Energy Issues, Vol. 37, Nos. 5/6, pp.304–318.	International	2014
62	T Sen and H O Bansal	Dynamic Modelling and Fault Diagnosis of an Induction Motor	International Review on Modelling and Simulation (IREMOS), Vol. 7, No. 4, pp 575-583,	International	2014
63	J S Soni, H P Agrawal, R Gupta and H O Bansal,	Potentials and Capabilities of FACTS Controllers for Quality and Performance Enhancement of Power System	International Journal of Innovative Technology and Exploring Engineering, Vol.2, No.4, ISSN: 2278-3075.	International	2013
64	H O Bansal, R Sharma and P R Shreeraman	PID Controller Tuning Techniques: A Review	Journal of Control Engineering and Technology, Vol.2, No.4, pp. 168-176,	International	2012
65	H O Bansal and D Malik,	Solar powered mini steam power plant: a simulation approach	International Journal of Renewable Energy Technology, Vol. 3, No. 3, pp.316–322	International	2012
66	Ananda Kumar A, Dheerendra Singh.	A IFOC-DSVPWM based DC-Link Voltage Compensation of Z-Source Inverter fed Induction Motor Drive for EVs	Advances in Power Electronics,	International	2015
67	Ananda Kumar A, Dheerendra Singh.	Digital Implementation of DSVPWM Control for EV fed through Impedance Source Inverter	International Journal of Power Electronics and Drive Systems (IJPEDS),	International	2015
68	Ananda Kumar A, Dheerendra	An Improved DC-Link Voltage Control of ZSI fed Induction Motor Drive Using FGS	International Journal of Applied Engineering Research (IJAER),	International	2015

	Singh	Controller			
69	Abhijit Asati, Subhendu Kumar Sahoo and Chandra Shekhar	An Improved 16-bit Booth Encoded Wallace Tree Multiplier	International Journal of Computational Intelligence and Telecommunication Systems Vol. 1, No. 1, pp. 23-29, (ISSN: 2229-3078)	International Journal	2010
70	Abhijit Asati and Chandra Shekhar,	A Purely Mux Based High Speed Barrel Shifter Design	International Journal of Computer Science and Information Technology Vol. 3, No. 2, pp. 249-253, December 2010. (ISSN: 0974- 8385)	International Journal	2010
71	Abhijit Asati and Chandra Shekhar	A Purely MUX Based High Speed Barrel Shifter VLSI implementation Using Three Different Logic Design Styles	Advances in Intelligent and Soft Computing Vol. 125, pp. 639-646, December 2011 .	International Journal	2011
72	Deepak Bharti and Abhijit R. Asati	A Novel Multi-Planar Band Structure Algorithm: Planar Region Matrix Approach	International Technology Research Letters (ITRL) Vol. 1, pp. 11-17, 2012.	International Journal	2012
73	Bharat Kumar Potipireddi and Dr. Abhijit Asati	Automated HDL Generation of Two's Complement Wallace Multiplier with Parallel Prefix Adders	International Journal of Electronics and Communication Engineering & Technology (IJECET), Vol., Issue 3, May – June (2013).	International Journal	2013
74	Bharat Kumar Potipireddi and Dr. Abhijit Asati	Automated HDL Generation of Two's Complement Dadda Multiplier with Parallel Prefix Adders	Int. Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Vol. 2, Issue 6, June 2013.	International Journal	2013
75	Priya Gupta, Anu Gupta and Abhijit Asati	A Review on Ultra Low Power Design Technique: Sub- threshold Logic	International Journal of Computer Science and Technology-IJCS (Under print)	International Journal	2013
76	Priya Gupta, Anu Gupta and Abhijit Asati	Design and Implementation of N-Bit Sub-Threshold Kogge Stone Adder with Improved Power Delay Product	European Journal of Scientific Research Vol.123, No 1, 106-116, June, 2014.	International Journal	2014
77	Abhijit Asati	Logic Design Style based NBTI Degradation Study using Verilog	International Journal of Emerging Technologies in Computational and Applied Sciences Issue10 ,Volume 3, pp. 207- 213, September-November,	International Journal	2014

			2014,		
78	A. Mishra, R. Jimit, A. R. Asati, K.S. Raju	Mapping and Partitioning of Task Graphs Using Kernighan-Lin/Fiduccia-Mattheyses Algorithm	Int. Journal of Emerging Technologies in Computational and Applied Sciences Issue 11 Volume 1, pp. 58-61, Feb., 2015.	International Journal	2015
79	Priya Gupta, Anu Gupta and Abhijit Asati	Power-Aware Design of Logarithmic Prefix Adders in Subthreshold Regime: A Comparative Analysis	Elsevier journal of Procedia Computer Science Vol. 46, pp. 1401 – 1408, 2015.	International Journal	2015
80	M. Angira and K. Rangra	A novel design for low insertion loss, multi-band RF-MEMS switch with low pull-in voltage	JESTECH, Elsevier DOI:10.1016/j.jestch.2015.07.001, 2015,	International	2015
81	M. Angira and K. Rangra	Performance improvement of RF-MEMS capacitive switch via asymmetric structure design,	Microsystem Technologies, Springer vol. 21, pp. 1447–1452,2015,	International	2015
82	M. Angira, G. Sundaram, and K. Rangra	A Novel Approach for Low Insertion Loss, Multi-band, Capacitive Shunt RF–MEMS Switch	Wireless Personal Communications, Springer vol. 83, pp. 2289-2301, 2015,	International	2015
83	M. Angira and K. Rangra	A low insertion loss, multi-band, fixed central capacitor based RF-MEMS switch	Microsystem Technologies, Springer	International	2014
84	M. Angira and K. Rangra	Design and investigation of a low insertion loss, broadband, enhanced self and hold down power RF-MEMS switch	Microsystem Technologies, Springer vol. 21, pp. 2259–2264, 2015,	International	2015
85	G. M. Sundaram, M. Angira, and K. Rangra	Design of VHF MEMS Disk Resonator	Int. Journal of Systems and Technologies vol. 5, pp. 18- 25, 2012.	International	2012
86	A. Dubey, A. Mishra, S. Bhutada,	Comparative Study of CH Stone Benchmarks on Xilinx Vivado High Level Synthesis Tool	International Journal of Engineering Research & Technology, Vol. 4, Issue 01, Jan., 2015.	National	2015
87	A. Mishra, K. P Kedar, H. M Shah, K. S. Raju	Implementing Quadratic Function with Resource constraints using Microblaze Soft-core in Xilinx EDK	IUP Journal of Telecommunication, IJTC11502, Feb, 2015	National	2015

88	A. Mishra, D. Dave, V. Mittal, K. S. Raju	Iterative Algorithms for Periodic Scheduling of Synchronous Data Flow Graphs	IUP Journal of Telecommunication, IJTC21502, Feb, 2015	National	2015
89	A. Mishra, S. Kumar, J. Vasavada, K. S. Raju,	Optimized Implementation of AES on Leon3	Journal of VLSI Design Tools and Technology, Vol. 5, Issue 1, pp. 30-33, Feb., 2015.	National	2015
90	A. Mishra, R. Jimit, A. R. Asati, K.S. Raju	Mapping and Partitioning of Task Graphs Using Kernighan-Lin/Fiduccia-Mattheyses Algorithm	International Journal of Emerging Technologies in Computational and Applied Sciences	International	2015
91	A. Mishra, A. Javed, K. Bhargava, K. Tanmane, H. M. Shah	Design Flow Cycle and Simulation of Load Mover	International Journal of VLSI and Embedded Systems, Article-12522, Vol. 06, August 2015	National	2015
92	. A. Mishra, V. Vanga, Vani V, A. R. Asati and K. S.Raju	Resource Estimation of programs for Reconfigurable Computing Systems	International Journal of Applied Engineering Research, pp. 30699-30712, Vol. 10, Num 12, 2015	National	2015
93	Srinivasa Reddy K, Sahoo S K	An approach for FIR filter coefficient optimization using differential evolution algorithm	AEU - International Journal of Electronics and Communications, Impact factor = 0.696, (SCI expanded)	International	2015
94	Rahul Singhal, M.N. Satyanarayan, S.Pal,	Fabrication of single-mode Y-branch waveguides in photosensitive polymer with reduced Y-junction residue	Optik - International Journal for Light and Electron Optics, Volume 123, Issue 21	International	2012
95	Rahul Singhal, M. N. Satyanarayan and Suchandan Pal	Fabrication of Monomode Channel Waveguides in Photosensitive Polymer on Optical Adhesive	SPIE Optical Engineering	International	2011
96	Rahul Singhal, M. N. Satyanarayan and Suchandan Pal	Effect of Residual Resist on Performance of Single-Mode 1X4 Optical Splitter in Photosensitive Polymer	Fiber and Integrated Optics	International	2010
97	Saumya Vij, Anu Gupta and Alok Mittal	An Operational Amplifier With Recycling Folded Cascode Topology And Adaptive Biasing	International Journal of VLSI Design & Communication Systems(VLSICS)	International	2014

98	Anu Gupta, Raj Singh Dua	A Novel Ultra Low Power, High Impedance Current Mirror Circuit for Biasing Operational Amplifier in Sub-threshold Region	International Journal of New Innovations in Engineering and Technology (IJNIET)	International	2013
99	Sachin Maheshwari, Amitoj Singh and Anu Gupta	Design of Logical Effort for Worst Case Power Estimation in a CMOS Circuit in 90 nm Technology	International Journal of Advances in Electronics Engineering	International	2012
100	Anirban Chatterjee, Sankha Subhra Saha, Rishabh Gupta, Anu Gupta	A Comparative Exploration of Sample and Hold architectures using Verilog AMS	International Journal of Engineering and Innovative Technology (IJEIT)	International	2012

Details of Books/Book chapter, Edited by Faculty:

Details of Book Published/Faculty Contribution	Publisher	Date/Year
H.D. Mathur, N.C. Hien, N. Mithulananthan, D. Joshi, R.C. Bansal, contributed Chapter 22 titled "Distributed Generation: A Power System Perspective", in book titled "Handbook on Renewable Energy Technology", pp. 563-583.	World Scientific Publishing Co., Singapore	2011
Ashish K. Sharma, Navneet Gupta, contributed Chapter titled "MEMS Switches for RF Applications - A Review", in book titled "Sensors and Biosensors, MEMS Technologies and its Applications", Second volume.	Sensors & Transducers journal, Canada	2013
Leonard.S.Bobrow and Navneet Gupta, "Foundation of Electrical Engineering: Asian Edition".	Oxford University Press, New Delhi	2013
Rikmantra Basu, contributed Chapter 4 titled "Transistor Lasers with Quantum Wells and Quantum Dots-in-Well in the Base", in book titled "Quantum Dots and Quantum Cellular Automata: Recent Trends and Applications", pp. 251-281.	Nova Science Publisher's, Inc., Hauppauge, New York	2013
Priya Gupta, Anu Gupta, Abhijit Asati, contributed Chapter titled "Design and ASIC Implementation of Column Compression Wallace/Dadda Multiplier in Sub-threshold Regime" for book titled "Advanced Research on Hybrid Intelligent Techniques and Applications"	ACIR Book Series, IGI Global	2014

23. Details of patents and income generated : Nil

24. Areas of consultancy and income generated : Nil

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

Sl. No	Faculty	Lab/Industries/Institutions	National/International	Year
1	Dheerendra Singh	EPS, FIU Miami	International	2015
2	Rajneesh kumar	Italy	International	2015
3	H D Mathur	SUPELEC (École Supérieure d'Électricité)	International	2015

4	Navneet Gupta	National Taiwan University of Science and Technology (NTUST), Taipei, Taiwan	International	2014
5	H D Mathur	SUPELEC (École Supérieure d'Électricité)	International	2013
6	Abhijit Asati	Cypress Semiconductors, Banglore	National	2014
7	Pradyumn Chaturvedi	SIEMENS, Banglore	National	2015

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

NIL

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

University provides opportunity to the staff and students to attend training program, workshop, refresher course, conferences to update and improve their skill sets. University Immersion Program and Industry-Immersion Program are functioning. Under these programs, a faculty can visit Indian industry or foreign university for maximum of 8 weeks duration for their research work. Following are the projects sanctioned by the university to initiate the research work as recharging strategies.

1	Inter-area oscillation Control using Embedded Energy Storage in Interconnected Power System with Distributed Generation	Dr. H D Mathur	Seed Grant Scheme, BITS, Pilani,	11.15	2 Yr.
2	Development of silicon prototype of low power and low noise clock-less pipelined/multi stages data - converter based on 180/90nm technology for low power portable self-trigger able integrated circuit applications.	Dr. Anu Gupta	Seed grant from BITS, Pilani.	8.30	2Yr.
3.	Roof top rainwater harvesting for safe, potable and healthy drinking water and groundwater replenishment for bits pilani, Pilani campus,	Dr. K. K. Gupta (co-PI)	Birla Institute of Technology and Science, Pilani	91	3 years (2014-17)

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects: 100%
- percentage of students doing projects in collaboration with other universities /industry / institute : 100% (All students go for PS-I/PS-II)

29. Awards / recognitions received at the national and international level by Faculty Doctoral / post doctoral fellows Students

1. Prof. Surekha Bhanot:

- Prof. Surekha Bhanot felicitated during BGM 2104 as a teacher that they would specially like to recognise the BITS Global Meet 2014 at BITS Pilani Hyderabad Campus.

2. Prof. Navneet Gupta:

- Dr. Navneet Gupta received Certificate of Appreciation from Department of Electronic and Computer Engineering, NTUST, Taiwan for remarkable effort towards the research work.
- Dr. Navneet Gupta was appointed as Reviewer for Third Int. Conf. on Technological Advances in Electrical, Electronics and Computer Engineering (TAECS 2015), Lebanese University, Beirut, Lebanon to be held during April 29-May 1, 2015.
- Dr. Navneet Gupta was appointed as Member of Board of Studies (BoS) of DIT University, Dehradun.
- Dr. Navneet Gupta got Best Paper Award in for his research paper , "Switching time-analysis for non-uniform serpentine flexure based RF-MEMS switched", IEEE 2nd Students Conference on Engineering and Systems, Motilal Nehru National Institute of Technology (MNNIT) Allahabad, April 12-14, 2013.
- Dr. Navneet Gupta has been given Bharat Jyoti Award for his excellence in academics in 2011, given by IIFS, New Delhi.

3. Dr. Dheerendra Singh:

- Dr. Dheerendra Singh mentored a project "Express FIR" by USA foundation "Avery Dennison" on August -22, 2014 The Project concept emerged one among the best ten projects selected after three grueling rounds.
- Dr. Dheerendra Singh got best paper award for his research paper titled "Implementation of Indirect Field Oriented Control for HEV through Impedance Source Inverter" IEEE sponsored 1st National Conference on Power Electronics Systems & Engineering, PESA, 16-17 March, 2013, NIT Rourkela, India.

4. Dr. Pradyumn Chaturvedi:

- Dr. Pradyumn Chaturvedi, and three students Chilukuri Abhijit and Cheruvu Phalanis and C B Parthap were shortlisted for Grand Finale of *INSCRIBE 2014* at Bangalore, Organized by Robert BOSCH Engg and Business Solution Pvt Ltd. They were among top 04 teams from all over the country in the Broad area of Manufacturing Technology. The Panel of Judges appreciated the innovative idea presented there.

5. Prof. Anu Gupta:

- Dr. Anu Gupta and four BITS Pilani students was selected for second position (reward money Rs 20,000) in Cadence Design contest 2012.
- Dr. Anu Gupta and four students was in the Top 7 of the Bachelor's category - Cadence Design Contest 2013.

Students:

- Kaustubh Nawade (4th-year dual degree student of EEE), Tarang Shah (4th year E&I) participated in Intel sponsored "Internet of Things" Hackathon as a part of the 28th International Conference on VLSI design and 14th International Conference on

Embedded Systems organized at Leela Palace, Bangalore between 2nd to 7th Jan, 2015. They are placed 3rd overall amongst 25 selected teams comprising of Bachelors students to PhD to working professionals..

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

- **Indo-Taiwan Workshop on Nano, Microelectronics & Embedded Systems (2010)**
Indo-Taiwan workshop on "Nano, Microelectronics & Embedded Systems" was conducted during 24th -25th September 2010 at BITS, Pilani, Pilani campus. This workshop was sponsored by Department of Science and Technology (DST), Ministry of Science and Technology, India and also supported by CII/GITA. The objective of this workshop was to conduct joint sessions where in topics of research in the areas of Nano electronics, Microelectronics and Embedded Systems were deliberated upon.
- **National Conference VLSI Design & Embedded Systems (NCVDES-2011)**
National Conference in association with IETE-Pilani centre, CSIR-CEERI Pilani and BKBIET, Pilani on "VLSI Design & Embedded Systems (NCVDES-2011)",(Oct. 12-14, 2011)
- **Workshop on “Control system design using MATLAB” (2012)**
Department of Electrical & Electronics and Instrumentation conducted a Workshop on “Control system design uses MATLAB” for NTPC Engineers on July 16-20, 2012, member of organizing committee.
- **International conference on Advanced Electronic Systems (ICAES-2013)**
An international conference on Advanced Electronic Systems was conducted by CSIR-CEERI & EEE department together on 21-23 September 2013. The conference was sponsored by IEEE Delhi Section.
- **National Conference on Advances in Microelectronics, Instrumentation and Communication (MICOM-2015)**
A National Conference on Advances in Microelectronics, Instrumentation and Communication (MICOM-2015) will be held on **November 20-21, 2015**. MICOM 2015 will comprise of invited talks by eminent academicians, regular and poster sessions of contributed papers.

31. Code of ethics of research followed by the Department.

"The department follows the code of ethics specified by the Institute". The Institute code of ethics is detailed in the SSR.

32. Student profile programme-wise:

S.No.	Name of The Programme	Applications Received	Selected		Pass Percentage	
			Male	Female	Male	Female
1	WILP--- FD A3*	14662	75	15		
	2010-11	12880	82	08		
	2011-12	15714	74	16	100 %	100 %

	2012-13 2013-14 2014-15	15120 18717	81 99	14 07		
2	FD A8 2010-11 2011-12 2012-13 2013-14 2014-15	14662 12880 15714 15120 18717	47 51 49 53 54	12 08 11 12 08	100 %	100 %
3	HD 23 2010-11 2011-12 2012-13 2013-14 2014-15	4428 4571 4825 5549 5172	16 11 13 14 09	05 04 04 02 03	100 %	100 %
4	HD 24 2010-11 2011-12 2012-13 2013-14 2014-15	4428 4571 4825 5549 5172	09 12 08 09 09	01 00 00 00 00	100 %	100 %
5	HD 40 2010-11 2011-12 2012-13 2013-14 2014-15	4428 4571 4825 5549 5172	14 11 08 05 07	00 00 00 02 04	100 %	100 %
6	PhD 2010-11 2011-12 2012-13 2013-14 2014-15	461 1173 964 773	09 04 05 02			

* Taken from Admission office, BITS-Pilani

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
	Exact data not available	Exact data not available	Exact data not available	Exact data not available

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Every year many students clear these exams but department does not maintain the data.

35. Student progression

Although we do not maintain this data. However some study is mentioned in following table:

Student progression	Percentage against enrolled
UG to PG	Approx 25-35%

		(vertical transfer)
PG to M.Phil.		NA
PG to Ph.D.		1
Ph.D. to Post-Doctoral		0
Employed		
<input checked="" type="checkbox"/>	Campus selection	The recruitment of students through campus placement is nearly 100% each year
<input checked="" type="checkbox"/>	Other than campus recruitment	
Entrepreneurs		Exact data not available

36. Diversity of staff

Percentage of faculty who are graduates (B.Tech or B.Sc.)	(Highest Degree M.E. or Ph.D.)
of the same university	02/36 00.06 % 36.11%
from other universities within the State	02/36 00.06 % 0
from universities from other States,	32/36 63.89 % 63.89%
from universities outside the country	00/36 00.00 % 0

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period Ph.D --09

38. Present details of departmental infrastructural facilities with regard to

- a. Library: Library facility is available to all students at Central Library.
- b. Internet facilities for staff and students : Excellent internet facility (LAN based and wi-fi) is available for staff and students in the campus.
- c. Students' laboratories: Following laboratories are present for experimentation of theoretical concepts to students:
 - VLSI Design Lab (O-Lab)
 - Embedded Controller Application Centre
 - Virtual Instrumentation Lab
 - Instrumentation Technology Lab
 - Power Electronics Lab
 - Electrical Machines Lab
 - Wireless Communication Lab
 - Fibre Optics & Optical Communication Lab
 - Communication Lab
 - Analog & Digital Electronics Lab
- d. Research laboratories:
 - Research facilities are available in all the above mentioned laboratories. UG, PG and Research Scholars are working in above areas in these laboratories.
 - O-Lab (VLSI Design lab); Communication Lab and Optical Communication Lab are basically full tiem research lab.

39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university
- from other institutions/universities

Full time Doctoral Students

1.	Ms. Aishwarya Panday
2.	Mr. Gaurav Purohit
3.	Mr. Yogesh Krishan
4.	Ms. Prachi Sharma
5.	Mrs. Priya Gupta
6.	Mr. Jintendra Kumar
7.	Mr. Satish Mohanty
8.	Mr. Fani Mani
9.	Mr. Jyotirmoy Bhardwaj
10.	Mr. Abhishek Joshi
11.	Mr. Ravinder Kumar
12.	Mr. Prashant Upadhyay
13.	Mr. Anuj Kumar Ojha
14.	Mr. Dhananjay Kumar

Part Time

1.	Mr. Praveen Kumar Singhal
2.	Mr. K Srinath
3.	Lt. (Col.) J. C. Joshi

40. Number of post graduate students getting financial assistance from the university.

* Total number is 260 in last 5 years. . The financial assistance is in the form of stipend or 40 % fee waiver. The students take part in academic related work of deptt.

* 18 Ph.D students were given fee waiver in last 5 years. (1 completed in 2014 + 17 continuing).

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

A major curriculum review exercise was done in 2010 for update of existing and developing new programmes.

42. Does the department obtain feedback from

- Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. Faculty members of the department give their feedback during department meetings on the existing curriculum and methodology adopted for teaching-learning-evaluation. The suggestions of faculty are incorporated in the curriculum for forthcoming semester/year.

- Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes. Students are encouraged to give feedback for the faculty and staff based on several criterion selected by Instruction Division. Student Faculty Council (SFC) of EEE department monitors the performance of students and keep continuous contact with students regarding their feedback related to faculty and other personal issues.

iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes. Alumni of the department are invited (by e-mail or face to face interaction during their visit) to provide their feedback on updating the curriculum as per the requirement of the industries. The course content and lecture delivery is also been continuously improved and updated after incorporating all the suggestions.

43. List the distinguished alumni of the department (maximum 10)

Name of distinguished alumni	Passing Year	Distinguished affiliation
Mr. Narpat Bhandari	1961	Founded ASPEN semiconductor (now Cypress semiconductor)
Prof. Krishna Saraswat	1968	Professor, Stanford University, Stanford, CA
Dr. Surendra Pal	1968	Dr. Satish Dhawan Professor and Advisor, Satellite Navigation Program, ISRO, Bangalore
Mr. Prem Jain	1968	Senior Vice President, Cisco Systems, San-Jose, CA
Prof. Narendra Ahuja	1972	Professor, University of Illinois, Urbana Champaign, Illinois
Dr. K.M.M. Rao	1970, 1972	National Remote Sensing Center (NRSC), India
Prof. Mohan Manubhai Trivedi	1974	Professor, University of California, San Diego
Prof. Sujeet K. Chaudhari	1970	Professor, University of Waterloo, Canada
Prof. Alok Choudhary	1982	Professor, Northwestern University, Evanston
Dr. Rajiv Gupta	1982	Massachusetts General Hospital, Boston

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

List of Special Lectures:

Speaker with designation and organization	Topic/Area	Date/Year
Dr. Ram Achar, Professor, Department of Electronics, Carleton University, Ottawa, Ontario	Advances in high-speed VLSI design modeling and analysis	November 28, 2011
Mr. Praful Jain, Design Engineer, Cosmic Circuits, Bangalore	Next Generation Research Opportunities in Electronics	October 20, 2012
Mr. Jayant Somani, Vice President, Cypress Semiconductor	Entrepreneurial experiences in Indian electronics industry	2012
Dr. Rakesh Kumar, President, TCX Inc., Technology Connexions, President, IEEE Solid-State Circuits Society	Challenges, and Innovation and Entrepreneurship Opportunities in Microelectronics	November 15, 2013
Prof. Anthony D. Fagan, Head, School of Electrical and Electronics, University College Dublin, UCD, Ireland	<i>Interaction with faculty members and students</i>	November 18, 2013
Dr. Wolfgang-Martin Boerner, Professor Emeritus Dr., Dr. Hc.mult. Dr.-Ing. Eh., University of Illinois at Chicago, UIC-ECE, Communications, Sensing & Imaging and	<i>Interaction with faculty members and students</i>	December 19, 2013

Navigation Laboratory		
Prof. J. J. Patel, Associate Professor, Electrical Engineering Department, SVNIT, Surat	Recent Developments in 32-bit Microcontrollers	October 20, 2014
Prof. Krishna C. Saraswat, Dept. of Electrical Engineering, Stanford University, Stanford, CA 94305, USA	How far can we push conventional silicon technology and what are the future alternatives?	November 20, 2014
Dr. Anirban Bera, Scientist, CEERI Pilani	Engineering Aspects of High Power Microwave Sources for Industrial, Scientific and Medical Applications	November 22, 2014

List of Workshops/Conferences/Seminars:

Name of Workshop/Conference/Seminar	Other Associated Dept. of BITS Pilani/Organizations	Date/Year
Indo-Taiwan Workshop On Nano, Microelectronics and Embedded Systems	Chung Hsing University, National Cheng Kung University, National Chiao Tung University, National Tsing Hua University, National Chip Instrumentation Center, Taiwan	September 24-25, 2010
National Conference on VLSI Design & Embedded Systems (NCVDES-2011)	IETE Pilani Centre, CSIR-CEERI Pilani, BKBIET Pilani	October 12-14, 2011
International Conference on Advanced Electronic Systems	CSIR-CEERI Pilani, IEEE Delhi Section	September 21-23, 2013
Workshop on Texas Instruments C2000 & MSP 430 Microcontroller	Texas Instruments India University Program, Cranes Software International Ltd	October 22-26, 2013

45. List the teaching methods adopted by the faculty for different programmes.

Programme	Teaching Methods	Teaching component	Teaching Aids
On-campus	Students and teacher face each other either directly or through a live interactive online video sessions	Lectures, Tutorials	Black board, power point slides using LCD projector
			Immersive Telepresence, High-definition Video conferencing and Live Streaming technologies
			edX based MOOC (Massive Open Online Courses) platform
		Laboratory sessions	Hands on
Off-campus	Students and teacher are connected through live and interactive online audio sessions	Lectures	Internet Based Desktop Video Conferencing systems using Cisco WebEx technology

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Programme	Evaluation
On-campus	Evaluation components are categorized as either Close book or Open book components.
	Evaluation components include announced/unannounced quizzes, home or laboratory assignments, Mid-semester examination or Tests 1 and 2, End-Semester Laboratory examination, and End-Semester Comprehensive examination.
	Evaluation sheets are distributed to students within 1 week of the component held and statistics are uploaded to web portal named Nalanda, The On-line Learning Management System.

	Student can apply for on-the-spot recheck in case concerned student is not satisfied with assigned marks. In such cases, evaluation sheets are re-evaluated within 3 days with appropriate comments and again shown to the concerned student.
	Based on relative performance of students, students are accordingly graded.
	Instruction Division independently monitors all evaluation components.
Off-campus	Evaluation components are categorized as either Close book or Open book components.
	Evaluation components include home assignments and End-Semester Comprehensive examination.
	Evaluation sheets are returned to Work Integrated Learning Division within 1 week of the receipt and statistics are uploaded to web portal named eLearn, Integrated e-Learning Portal.
	Student can apply for recheck to WILP Division in case concerned student is not satisfied with assigned marks. In such cases, evaluation sheets are re-evaluated within 3 days with appropriate comments and again returned to WILP Division.
	Based on relative performance of students, students are accordingly graded.
	WILP Division independently monitors all evaluation components.

47. Highlight the participation of students and faculty in extension activities.

EEE Association: EEE student association provides a platform for the enthusiasts to come up with solutions to real life engineering problems.

Events Organized	Year
<ul style="list-style-type: none"> Organized a workshop on Microcontroller Programming & Wireless Interfacing for Robotics Prof. L.K. Maheswari Foundation's Best Graduating student award 2010 and the girl student of the year 2010 	2010
<ul style="list-style-type: none"> Organized Track-o-mania, Robots at War, Micro mouse and Health Care Gadget Design Competition 	2011
<ul style="list-style-type: none"> Robotics event for first year students 	2012
<ul style="list-style-type: none"> Organized Track-o-mania, Robots at War, Istrike, Hackatronics competitions 	2013
<ul style="list-style-type: none"> Organized Track-o-mania, Robots at War, Istrike, Hackatronics competitions 	2014

Instrumentation Forum:

Instrumentation student forum provides a platform for the enthusiasts to come up with solutions to real life engineering problems.

Events Organized	Year
<ul style="list-style-type: none"> Poorvikaran Lecture Series followed by lab sessions Robot design as Robotica to expose the students about the design issues involved in Robots LabVIEW students training Setting up of PSoC Lab in BITS, Pilani, supported by the University Alliance Program of Cypress Semiconductors 	2010
<ul style="list-style-type: none"> 3 poorvikaran lectures on Micro-controllers, Introduction to electronics and Integrated Circuits 2 labview workshops 2 PSoC lectures 	2011
<ul style="list-style-type: none"> Lab View Workshop conducted with the help of National Instruments Cypress PSoC Workshop 	2012

• Track-o-Mania Workshop	2013
• Track-o-Mania Workshop	2014

Embryo is a project to foster **strong collaboration** of BITS students and BITS faculty with the alumni and friends of BITS Pilani. Through **lecture series** and **collaborative projects**, the students can get exposure to the cutting edge research areas. They also get an opportunity to network with Alumni and friends of BITS, who are reputed academicians and industry leaders. Each and every alumnus can contribute his most valuable resources to BITS Pilani - knowledge and experience. The approach is three-fold:

- Complement BITS courses through video lecture series
- Facilitate collaborative research projects between alumni and BITS
- Expose students to current research trends and provide guidance for pursuing research projects

The video lectures conducted by several alumni as shown in table.

Speaker Name	Topic/Area	Date/Year
Ms. Newsha Ghaeli	MIT Senseable City Lab	September 16, 2011
Anupam Purwar	How to build a UAV and opportunities at IISC Bangalore	November 16, 2014
Mr Soumitra Dutta	Leadership in Technology and Innovation: Global trends and challenges for India	April 22, 2014
Dr. Mandar Deshmukh	Graphene — An exciting two-dimensional material for science and technology	April 18, 2014
Mr. Samay Kohli	Robotics 101	August 10, 2013
Gaelen Pereira	Know Your University-Wireless Communication	April 14, 2013
Siddhartha Nath	Know Your University-Computer Architecture	April 14, 2013
Rakesh Komuravelli	Today's hardware for safe parallelism	January 12, 2013
Gary C Kessler	Cryptography	February 10, 2012
Santhosh Kasavajjala	Stability of Circuits	October 15, 2011
Rahul Viswanath	The Common Source Amplifier	October 13, 2011
Santhosh Kasavajjala	Analysis of MOS Amplifiers	October 8, 2011
Rahul Viswanath	The Story of the Transistor	October 6, 2011
Santhosh Kasavajjala	Analysis of RC Circuits and basics of Circuit Theory	September 10, 2011
Karthika Periyathambi	Introduction to Computer Architecture	August 25, 2011
Karthika Periyathambi	Computer Architecture: an Insight into the Fundamentals	January 30, 2011
Priya Jadhav	Excitement of current Solar Physics research	November 15, 2010

48. Give details of “beyond syllabus scholarly activities” of the department.

- Beyond syllabus our faculties do contribute their expertise in mentoring/supporting and guiding various projects and models that our students present in various technical fest in campus (APOGEE) and outside campus (Other tech fests)

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Department has always been taking initiatives in generating new knowledge to its students, staff and faculty members by conducting various workshops and seminars. The workshops conducted by Faculty at Pilani Campus for Outside Participants are as follows:

Name of Workshop/Conference/Seminar	Other Associated Dept. of BITS Pilani/Organizations	Date/Year
Workshop on Control system design using MATLAB for NTPC Engineers	Dept. of Computer Science & Engineering, Dept. of Chemical Engineering, BITS Pilani	July 16-20, 2012
Workshop on Control System Design using MATLAB for NTPC Engineers	Dept. of Computer Science & Engineering, Dept. of Chemical Engineering, BITS Pilani	October 21-26, 2013

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- Teaching: Teaching is well defined in a handout proving clear learning objective of the course along with evaluation component with their schedule.
- Evaluation: Continuous evaluation through tutorials, online assignments, lab practice and projects with a shared feedback to provide scope of their improvement.
- Research: State of art laboratories equipped with appropriate hardware, software and online access to most of the peer reviewed journals including IEEE facilitates research for the faculty and students at all levels (UG, HD, Ph. D.).
- Industry relation: industry engagement, PS, WILP, Research, alumni support (machine lab)
- University relation:

Weakness:

- Less technical/ non teaching staff
- Tapping new funded research project.
- Getting quality faculty is big challenge
- State of art lab facility is required

Challenges:

- Recruitment of faculty at the senior level.
- Improving the lab facilities and recruitment of technical staff.
- Effort to get sponsored research project funding from different funding agencies.
- To adapt and implement new teaching methodologies for most of the courses.
- To develop industry relations for more industry projects, teaching assignments through WILP and PS linkages.

52. Future plans of the department.

- Floating new electives and starting programmes
- Developing new research labs
- Planning to propose short term training courses to academician and working professionals of the industry.

53. Any other information regarding your department which you would like to include.

List of Invited Talks Delivered by Faculty:

Topic, Name of Speaker	Details of Event, Organization	Date/Year
Keynote address by Dr. H.D. Mathur	Power Engineers Association of Karunya (PEAK) 2010, Karunya University, Coimbatore	August 26, 2010
"Soft Computing Techniques related to Power system Engineering" by Dr. H.D. Mathur	International Conference on Thermal Energy and Environment Madurai, India	March 24-26, 2011
"Optical Networks: Modeling and Performance Analysis" by Prof. V.K. Chaubey	National Conference on Converging Technologies beyond 2020, Kurukshetra University	April 6-7, 2011
"AI Techniques in Power System Control" by Dr. H.D. Mathur	National Conference on Advancement in Convergence of Technologies, Amity University, Haryana	September 8-9, 2011
"High Speed Optical Communication Networks: Modeling and Performance Analysis" by Prof. V.K. Chaubey	National Conference on Advances in Recent Technology in Communication & Computing, Marudhar Engineering College, Bikaner	September 11-12, 2011
"Architecting the BITS-Lifeguard Wearable Computing System: A Bio-signal-based approach for Stress-level Monitoring of Automotive Drivers" by Mr. Rajiv Ranjan Singh	Durham Hall, Center for Embedded Systems for Critical Applications at Bradley Department of Electrical and Computer Engineering, Virginia Tech., Blacksburg, USA	October 11, 2011
"Recent Trends in Power Electronics Converters and Drives" by Dr. Dheerendra Singh	Industrial Power Electronics Current trends, ISTE Chapter, BRCM Engineering Institute, BAHAL	October 19-20, 2011
"Introduction to conventional and advanced intelligent controls" by Prof. Surekha Bhanot and Mr. Parikshit Kishor Singh	Power Management Institute, NTPC, Noida	December 5-7, 2011
"Aspiration from future engineers and buzzwords in instrumentation" by Prof. Surekha Bhanot	Rayat Bahra institute of engineering and nanotechnology, Hoshiarpur	January 27, 2012
"Instrumentation: Opportunities and Challenges" by Prof. Surekha Bhanot	The Technological Institute of Textile & Sciences, Bhiwani	March 29, 2012
"Smart Grids" by Dr. H.O. Bansal	National Conference on Engineering Trends in Power System Engineering, MEC, Bikaner	April 23, 2012
"Hybrid Electric Vehicles" by Dr. H.O. Bansal	Short term program on Smart Grid Technologies, MNIT, Jaipur	May 14, 2012
"Optical Communication Systems" by Prof. V.K. Chaubey	Two-day Seminar on Photonic Devices & LTCC Technologies at CEERI Pilani	September 6-7, 2012
"Distributed Generation and its Impact on Power System Restructuring" by Dr. H.O. Bansal	National Workshop on Restructuring of Power System and Recent Electricity Markets, Poornima College of Engineering, Jaipur	September 15, 2012
"High Speed Optical Networks" by Prof. V.K. Chaubey	2nd National Conference on Emerging Technologies in Computer Engineering NCETCE-2012, SKIT, Jaipur	November 3, 2012
"Conventional Controllers, and Recent Trends in Controllers" by Prof. Surekha Bhanot	Power management Institute, NTPC, Noida	December 3, 2012
Keynote address by Dr. Dheerendra Singh	All India Seminar on Optimal use of Power electronics in Modern Power system and Renewable energy, MPUAT, Udaipur	March 8-9, 2013

"Restructured Power System and Distributed Generation" by Dr. H.O. Bansal	SN College of Engineering Hissar	March 19, 2013
"Recent Trends in Biomedical Signal and Image Processing" by Dr. K K Gupta	BRCM College of Engineering & Technology, Bahal, Haryana	May 11, 2013
"Optical Communication in Telecommunication" by Prof. V.K. Chaubey	World Telecommunication & Information Society day, Institute of Engineers, IIT Roorkee Local Centre	May 21, 2013.
Expert lecture delivered by Dr. Dheerendra Singh	AICTE sponsored Faculty Development Programme, MPUAT, Udaipur	June 20-22, 2013
Invited talk by Dr. V K Chaubey on "Student discipline challenges in Engineering Institutes" by Prof. V.K. Chaubey	Faculty Development Program, VIT Global University, Jaipur	July 19, 2013
Keynote address by Dr. Dheerendra Singh	International Conference on Advance research in Renewable Energy & Power System (ICARREPS-2013), Marudhar Engineering College, Raisar, Bikaner	August 7-8, 2013
"Application of Wavelets in Image Processing" by Dr. K.K. Gupta	AICTE sponsored and ISTE approved National workshop on Advanced DSP with MATLAB, BRCM College of Engineering & Technology, Bahal	August 23, 2013
"Emerging Trends in Wireless Communication and Networks" by Prof. V.K. Chaubey	Pre-conference tutorial in International Conference on Advanced Electronic Systems, CSIR-CEERI, Pilani	September 20, 2013
"Frequency regulation issues in smart grid scenario with increasing wind energy penetration" by Dr. H.D. Mathur	Pre-conference tutorial in International Conference on Advanced Electronic Systems, CSIR-CEERI, Pilani	September 20, 2013
Expert lecture by Dr. H.D. Mathur	AICTE sponsored winter school on "Recent trends in power electronics and their controls for industrial drives and renewable energy", MPUAT, Udaipur	December 3-4, 2013
"Smart Grid Challenges and Opportunities: Power System Perspectives" by Dr. H.D. Mathur	International Conference on Advance Trends in Engineering and Technology, Jaipur	December 19, 2013
"Automatic Generation & Optimal Control of Power System under changing scenario" by Dr. Dheerendra Singh	BRCM College of Engineering & Technology, Bahal, Haryana	2013
Expert lecture by Prof. H.D. Mathur	Short Term Training Programme on Emerging Trends in Electric Power and Energy Systems, NIT, Bhopal	January 3, 2014
"Computational Tools in Image Processing" by Dr. K. K. Gupta	UGC sponsored National Workshop on Computational Tools in Research, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat	February 17-22, 2014
"Open Call in Research" by Dr. K. K. Gupta	UGC sponsored National Workshop on Computational Tools in Research, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat	February 17-22, 2014
"Material Selection methodology for gate dielectric material for MOS devices" by Dr. Navneet Gupta	National Conference on Innovations in Microelectronics, Signal Processing and Communication Technologies, VIT University, Jaipur	February 26-27, 2014
Invited lecture by Prof. H.D. Mathur	International Conference on Power and Energy Systems: Towards sustainable energy, Amrita University, Bangalore,	March 13-15, 2014

	India.	
"Effects of Age and Hearing Loss on Concurrent Vowel Identification" by Dr. Ananthakrishna Chintanpalli	Oregon Health and Science University, Portland, USA	May, 2014
"RF Cavity Technologies" by Dr. Praveen Kumar A.V.	Inter-University Accelerator Centre (IUAC), New Delhi	August, 2014
"Recent trend in Power Electronics Converters and their Applications to Power System" by Dr. Dheerendra Singh	BRCM-CET, Bahal	September 22, 2014
"Real Time Implementation of Power Electronic Converters" by Dr. Pradyumn Chaturvedi	Faculty Development Program on Advancement and Application of Power Electronics in Present Scenario at Malviya National Institute of Technology, Jaipur	December 24, 2014

List of other Professional Activities by Faculty:

- Prof. Surekha Bhanot conducted Viva voce examination of Ms Swarnlata, BITS Pilani Dubai on topic "Development of Novel Techniques for Fetal ECG Extraction in Early Pregnancy", on October 21, 2010.
- Prof. Surekha Bhanot acted as Member technical committee in National Conference on Power, Instrumentation, Energy and Control, February 12-13, 2011, Dept. of Electrical Engineering, Zakir Husain College of Engineering & technology, Aligarh Muslim University, Aligarh (UP).
- Prof. Surekha Bhanot attended "Board of studies" meeting in Sharda University on March 16, 2011 for the revision of the curriculum for BE (Electronics & Instrumentation).
- Prof. Surekha Bhanot evaluated Ph.D. thesis titled "Development of indoor environment monitoring system and its applications" from IIT Delhi in July 2011.
- Prof. Surekha Bhanot evaluated Ph.D. thesis titled "Epistemological Decision making in Complex systems" from Jai Narain Vyas University, Jodhpur in July 2011.
- Prof. Surekha Bhanot attended "Board of studies" meeting in Sharda University on July 12, 2012 for introducing M tech (Instrumentation & Control).
- Prof. Surekha Bhanot evaluated Ph.D. thesis titled "Development of computer based analysis and interpretation of multi-lead ECG signal" from Jai Narain Vyas University, Jodhpur in August 2012.
- Prof. Surekha Bhanot evaluated Ph.D. thesis titled "Active learning for cost effective data mining" from Banasthali university, Rajasthan in December 2012.
- Prof. Surekha Bhanot invited as a Member of Selection Committee by JK Lakshmi Pat University, Jaipur on December 11, 2014.
- Prof. Surekha Bhanot attended first meeting of project review and steering group of "Development of Electronic milk analyzer using green technology" at DEIT, Electronics Niketen, New Delhi.
- Prof. Surekha Bhanot went as NAAC Acessor to Bapatla Engineering College, Guntur during February 11-14, 2015.
- Prof. Surekha Bhanot joined as Editorial board member of Journal of Instrumentation Technology and Innovation from STM Publishers in March 2014.
- Prof. Surekha Bhanot went as NAAC Acessor to BS Abdul Rehman Institute of Science & Technology, Chennai during April 8-10, 2014.
- Prof. Surekha Bhanot conducted Ph.D. Viva-voice examination of Mr. J P Agarwal at Banasthali University on topic "Medical data detection, compression, denosing using wavelet and S transfor" on May 11, 2014.
- Dr. H.D. Mathur invited as a resource person for three day workshop on Power Electronics in Green Engineering during August 25-27, 2010 at Karunya University, Coimbatore.
- Dr. H.D. Mathur selected as Editor for International Journal of Power Electronics and Drive System (IJPEDS) in 2012.
- Dr. H.D. Mathur selected as Editorial board member for International Journal of Energy Optimization and Engineering (IJEEO) in 2012.
- Dr. H.D. Mathur attended EPE control chapter symposium on Smart Grids with emphasis on "DC grid for more renewable energy penetration in the power networks of the future DC grid

- control and operations" in Paris, France, on January 24, 2013.
- Prof. H.D. Mathur evaluated thesis titled "An integrated inverter structure for grid connected PV system with MPPT" from Maharana Pratap University of Agriculture and Technology, Udaipur in 2015.
 - Prof. H.D. Mathur invited as a Member of Selection Panel from Banasthali Vidyapeeth, Rajasthan, and Manipal University, Rajasthan in 2015.
 - Dr. Rajneesh Kumar was Publication Chair at the International conference on Emerging Technologies Micro to Nano, ETMN-2013, Goa, India, February 23-24, 2013, organized jointly by BITS, Pilani and CEERI, Pilani.
 - Prof. H.D. Mathur evaluated thesis titled "Facts Devices for the Increased Load Ability of Power System" from Indian School of Mines, Dhanbad in 2014.
 - Prof. H.D. Mathur joined as a Member of Board of Studies of Karunya University, Coimbatore in 2014.
 - Prof. H.O. Bansal served as member of selection panel for SMIT, Jaipur in 2014.
 - Dr. Abhijit R. Asati served as Advisory Committee member of IEEE International Conference on Signal Processing and Computer Technology (ICSPCT 2014), July 12-13, 2014, Ajmer, India.
 - Dr. Abhijit R. Asati served as Program committee member of IEEE International Conference on advances in electronics, computers and Communications (ICAECC-2014) in 2014.
 - Dr. Abhijit R. Asati served as Program Committee member of the Seventeenth International Symposium on VLSI Design and Test (VDAT-2013), July 27-30, 2013, MNIT, Jaipur, India.
 - Dr. K. K. Gupta done following miscellaneous activities in 2014: Reviewed research articles for IET Journal on Circuits, Devices and Systems (CDS-2014-0222); IET Image Processing (IPR-2014-0503, IPR-2013-0800); Elsevier Journal on Computers & Electrical (COMPELECENG-D-14-00513, COMPELECENG-D-14-00513R1, COMPELECENG-D-13-00644, COMPELECENG-D-13-001034); Bowen's Journal of Mechanical Engineering & Technology (JMET10054); Executive Committee member, IETE Pilani Centre; EC member, IEEE Computer Society of India Council Execom - 2014; Technical Committee (TC) Member Of International Conference on Signal Processing and Integrated Networks (SPIN- 2014), SPIN- 2015; ICAECC 2014; International Scientific Committee (ISC) of International Conference on Smart City (ICSC-2014) at Shanghai, China; ICCAAM-2015, Sousse, Tunisia; ICCAAD-2015, Sousse, Tunisia; WiCOM-2014 in Beijing, China, WiCOM-2015; Article review for SPIN-2014 (312, 346), IFESS-2014, WiCOM-2014 (70203), ICAECC-2014, ICDCCom-2014, SPIN-2015.
 - Prof. Surekha Bhanot went as NAAC Acessor to Amrita University during September 8-13, 2014.
 - Dr. Navneet Gupta reviewed research papers for IEEE Int. Conf. on Advances in Electronics, Computers and Communications (ICAECC) held during 31-10-2014 to 02-10-2014 at Reva Institute, Bengaluru.
 - Dr. Navneet Gupta reviewed following research paper titled "Transmit Beam forming for MIMO optical Wireless Communication Systems" Wireless Personal Communication by Springer (Manuscript Number; WIRE-D-13-00377) in 2014.
 - Dr. Ananthakrishna Chintanpalli reviewed an international journal article in the European Archives of Oto-Rhino-Laryngology and Head & Neck in November, 2014.
 - Dr. Abhijit R. Asati served as Program Committee member of the Nineteenth International Symposium on VLSI Design and Test (VDAT-2015) June 26-19, 2015 at Institute of technology Nirma university, Ahmedabad, India.

Pilani Campus: Evaluative Report of the Department HUMANITIES AND SOCIAL SCIENCES

1. **Name of the Department:** Department of Humanities and Social Sciences
2. **Year of establishment of the Department:** 1963 (a year prior to BITS Pilani gaining the “Deemed University” status)
3. **Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
First Degree Programme (MSc Tech General Studies) and Ph. D.
5. **Interdisciplinary programmes and departments involved:**
 - The 2 unit course “**Technical Report Writing**” offered by the Department of Humanities and Social Sciences. This course is mandatory for all first-degree students.
 - Besides, the Department also offers an optional course “**Technical Communication**” (3 units) for Higher Degree students.
 - In addition, according to the new curriculum in force since 2011, it has become mandatory for first-degree students of BITS Pilani to complete at least **three courses totalling to 8 credits minimum**, which are offered by the Department of Humanities and Social Sciences.
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**
The Department offers two courses (Technical Report Writing and Technical Communications) as part of the Work Integrated Learning Programme offered by the university. These courses are rotated amongst the faculty members of the Department every semester.
7. **Details of programmes discontinued, if any, with reasons:** No.
8. **Examination System:** Semester and Choice based credit system
9. **Participation of the department in the courses offered by other departments:** No
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note**	Nil	Nil
Associate Professors		6	6
Asst. Professors		13	13
Others		2 lecturers	2 lecturers

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers

designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Dr. Gajendra Singh Chauhan	Ph.D.	Associate Professor	Applied Linguistics, Media Studies, Business & Advertising Communication, and Soft Skills	15 years 6 months	2 PhD
Dr. Anil Rai	Ph.D.	Assistant Professor	Science and Logic, working behind world wide music and its practical application in stage performances	25 Years, 9 Months	0
Dr. Anupam Yadav	Ph.D.	Assistant Professor	Continental Philosophy Philosophy of Social Sciences	1 Year 07 Months	0
Dr. Devika Sangwan	Ph.D.	Associate Professor	Feminism, Literature, Creative writing, Cinematic Adaptation	14 years 08 Months	2
Dr. Dinesh Yadav	Ph.D	Assistant Professor	Theatre Arts Performance Making and Scenography	2 years 11 Months	0
Dr. Hari Nair	Ph.D	Assistant Professor	Intellectual History and Political Thought	3 years 8 months	2
Dr. Kumar Neeraj Sachdev	Ph.D	Associate Professor	Normative Ethics; Ethical Issues in Professions; Indian Philosophy	16 years 10 months	2
Dr. Kumar Sankar Bhattacharya	Ph.D	Assistant Professor	English Literature, Cultural Studies, Postcolonial Theory, Indian Writing	3 Years	1
Dr. Pushp Lata	PGDTE; Ph.D	Associate Professor	English Language Teaching, Professional Communication, Language, Culture and Communication	21 years	1
Dr. Rajneesh Choubisa	Ph.D	Assistant Professor	Psychology, Organizational Psychology, Positive Psychology, Online Behavioral Sciences	3 Years 4 Months	0
Ruchika Sharma	M.A, Pursuing	Lecturer	Advertising, Applied psychology	7 Years	0

	Ph.D				
Dr. SK Choudhary	Ph.D.	Associate Professor	Linguistics & Phonetics; ELT; Soft Skills	19 Years	2
Dr. Sailaja Nandigama	Ph.D	Assistant Professor	Environment & Development Studies, Political Science, Public Policy, Human Rights, Gender Studies	7 years and 7 months Ni	0
Dr. Sangeeta Sharma	PhD	Associate Professor	Advertising and Communication, Gender Studies	24 Years	3
Dr. Somdatta Bhattacharya	Ph.D	Assistant Professor	English Literature, Cultural Studies, Urban Studies	1 year 8 months and	1
Dr. Sunita Raina	Ph.D	Assistant Professor	Science and Technology Studies (STS), Sociology, Globalization Studies, Development Studies	15 years and 8 months:-- and 2 months)	
Dr. Sushila Shekhawat	Ph.D	Assistant Professor	Film Studies; English Literature; Mass Communication	13 years 1 month	2
Dr. Tanu Shukla	PhD	Assistant Professor	Psychology; Education	3 years	0
Tathagato Chakraborty	M.A	Lecturer	Urban Studies	3 years	0
Dr. Umesh Dhyani	PhD	Assistant Professor	CSR, Public Policy	25 years	2
Dr. Virendra Singh Nirban	PhD	Assistant Professor	Technology Acceptance Behaviour, Technology enabled education and Communication, Computer Mediated Communication	12 Years and 2 Months	2

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

S No	Faculty	Designation	Year	No of Semesters	DOJ	DOL	Courses
1	Diksha Sharma	Visiting Faculty	2011-2013	3	18-08-2011	31-12-2013	Technical Report writing Post Modernism Critical Analysis of Literature and Cinema
2	Piyush Gupta	Visiting Faculty	2011-2014	5	18-08-2011	31-12-2014	Technical Communication Technical Report writing Temporary Drama
3	Dinesh Yadav	Visiting Faculty	2012-2013	2	01-10-2012	31-07-2013	Theatre: Arts: Acting and Production
4	B K Gupta	Guest Faculty	2013-2014	2	06-09-2013	15-05-2014	Public Administration, Heritage of India

5	Shyama Hari Das	Guest Faculty	2013-2016	2	09-09-2013	31-07-2016	Srimad Bhagavad Gita
6	Bandana Sachdeva	Guest Faculty	2013-2014	2	12-09-2013	15-05-2014	Contemporary India , General Studies , Dynamics of Social Change, Selected Readings

13. Percentage of classes taken by temporary faculty – programme-wise information: Less than 5%.

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation):
4:1 (four students per instructor)

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual: One member of the technical staff and two administrative staff members.

16. Research thrust areas as recognized by major funding agencies:

- Education
- English language and literature
- Environment
- History
- Management
- Media and Advertising
- Philosophy
- Political Science
- Psychology
- Sociology
- Theatre and Music.

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed Projects

Sl. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in lakhs)	Duration
1	Pagadi Project	Dinesh Yadav	Ministry of Culture, Govt. of India	3.5 Lakh	1 year
2.	Rickshaw Project on Mobility for Health	Sanjiv Kumar Choudhary	International Forum for Rural Transport and Development (IFRTD), London	GBP 1100	1 year
3.	Impact Assessment Study of Pradhan Mantri Gram Sadak Yojana (PMGSY) including Gender	Sanjiv Kumar Choudhary	National Rural Roads Development Agency (NRRDA), MoRD, Govt. of India, New Delhi	4,92,000/-	4 Months

4.	Developing Teaching Modules For English Learning Through Multimedia Technology For Rural Children From ClassV – VIII	Sangeeta Sharma	UGC	5 lakhs	2years
5.	Evaluation for Teach India Campaigns in Rajasthan	Sangeeta Sharma	Pratham Education Foundation	50,000	4 months

Ongoing projects

Sl. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (in lakhs)	Duration
1.	UGC Major Research Project: "Exploring and Understanding North-East India through its Literary Productions"	Dr. Kumar Sankar Bhattacharya	UGC	8.88 lakhs	3 years
2	Forts and Performances	Dinesh Yadav	Ministry of Culture	2.4 lakhs	2 Years
3.	UGC MAJOR RESEARCH PROJECT Cinematic Arts: A Critical Study of Interdisciplinary Aspects in Cinema with special reference to Literature, Audio-Visual and Performance ,	Dr. Sushila Shekhawat	UGC	5.54 lakhs	2 Years
4.	Awareness, Uses and Implications of Web2.0 in Supplementing Classroom Teaching at Undergraduate Level	Dr. V S Nirban	UGC, New Delhi	7.84 Lacs	2 Years
5.	A Normative Analysis of Selflessness as the Inner Perspective of Good Life	Kumar Neeraj Sachdev	Indian Council of Philosophical Research (ICPR), New Delhi	2 Lakhs	2 years
6.	Transforming Language Learning with New Technologies for Enhancing Employability of College Students from Rural Background	Pushp Lata	UGC, New Delhi	8,94,600/-	Two years (2013-15)
7.	Development of Listening and Speaking Modules of English Language through Multimedia Lab for Rural Students of class XI-XII	Devika	UGC, New Delhi	4,09,500/-	Two years (2013-15)

18. Inter-institutional collaborative projects and associated grants received

- a) National collaboration: Theatre Design Workshop 15 December 2014- 5 January 2015 in collaboration with National School of Drama, New Delhi. Expenditure covered by National School of Drama, New Delhi. Rs. 6.00 Lakhs.
- b) International collaboration: No international collaboration

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. We have not had any departmental projects in the last five years.

20. Research facility / centre with

- state recognition
- national recognition: Centre for Women's Studies (04/12/2004 -31/03/2014)
- international recognition

21. Special research laboratories sponsored by / created by industry or corporate bodies:

No

22. Publications:

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	79
2	Monographs	1
3	Chapters in Books	17
4	Edited Books	14
5	Books with ISBN with details of publishers (conference proceedings)	20
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	8
7	Citation Index – range / average	Unable to answer
8	SNIP	Unable to answer
9	SJR	Unable to answer
10	Impact Factor – range / average	0.612
11	h-index	Unable to answer
	CONFERENCE PAPERS PRESENTED (National/ international)	NO.

Details of the publications as per the number give above (Give details in the last five years)

Papers in Journals

SNo	Authors	Title of publications (ISBN number, Books, Monographs, Chapters in books)	Details of the journal (Database in which the journal appears, ex. Scopus; Citation Index; SNIP; SJR; Impact factor of journal; H-Index)	National/ Internatio nal	Year
1.	Swaha Das and Hari Nair	ARTICLE IN JOURNAL "Visions of secularism in India"	Canadian Diversity, vol. 10:1, Spring 2013, pp. 44-8, published by the Association for Canadian Studies	International	2013
2.	Tathagato Chakraborty and Kumar Sankar Bhattacharya	ARTICLE IN JOURNAL "Mahanagar to Metropolis: Capturing the Dynamism of Urban Landscape of Kolkata through Films."	The Journal of Social Sciences and Humanity Research. Vol. 3 (1): January-June, 2015.	National	2015
3.	Kumar Sankar Bhattacharya	ARTICLE IN JOURNAL "Colonial Discourse and the Politics of Comic Representation in Anurag Mathur's The	<u>SubalternSpeak</u> . Vol.2 (3): April 2014.	National	2014

		Inscrutable Americans.”			
4.	Kumar Sankar Bhattacharya	ARTICLE IN JOURNAL “Caste as a Social Construct in Indira Goswami’s The Moth-Eaten Howdah of the Tusker and The Offspring.”	<u>Journal of Post-Colonial Cultures and Societies. Vol.3 (2): 2012, 9-34.</u>	International	2012
5.	Kumar Sankar Bhattacharya	ARTICLE IN JOURNAL “Doubly “Othered” Dorothy Brown and Indira Goswami’s Idea of Female Emancipation in The Man from Chinnamasta.”	<u>Streelipi: An International Journal of Feminist Studies. Vol.1 (2): July-August 2012, 1-8.</u>	National	2012
6.	Dinesh Yadav	Article in Journal “Alwar Ka Raja Bharthari Natak”. Ed. Ravindra Tripathi New Delhi:in Rang Prasang, National School of Drama.		National	2013
7.	Sushila Shekhawat	ARTICLE IN A JOURNAL Cinematic Exploration of the Changed Realities in the Projection of Gender Specific Roles	GSTF:JLSS(Journal of Law and Social Sciences.Vol2.No.2.2013.	International	2013
8.	Sushila Shekhawat	ARTICLE IN A JOURNAL Silence as an Extended Metaphor in the Delineation of Introspective women in Shashi Deshpande's Novels	Literary Voice.Volume1.No.2 2013.	National	2013
9.	Geetha,B and Sushila Shekhawat	ARTICLE IN A JOURNAL Integrating Humanities and Liberal Arts in Engineering Curriculum: Need, Experiences and New Directions".	Patarnika: JSSH.Vol.21(2).	International	2013
10.	Sushila Shekhawat	ARTICLE IN A JOURNAL Rathore, Sushila .“Dexterous Projection of the Feminine Sensibility: A Study of Anita	Desai’s Works". The Literati: A Peer Reviewed Journal of Language and Literature. 5-14.	National;	2012
11.	Rathore, Sushila and Devika	ARTICLE IN A JOURNAL "Depiction of Individual Ideology against the backdrop of philosophy in the Movies of Alfred Hitchcock, Orsen Welles and Jean Renoir".	Literary Insight: Refereed International Journal. Volume 3. 41-45.	National	2012

12.	Rathore, Sushila and Devika	ARTICLE IN A JOURNAL "Tumultuous Ordeal of Women to Self Assertion in Manju Kapur's Difficult Daughters and Married Woman" .	Contemporary Discourse. Refereed International Journal. Volume 3. Issue 1.113-118.	National	2012
13.	Rathore, Sushila and Devika (2011).	ARTICLE IN A JOURNAL "Self Assertion of Hester Prynne and Pilate for Sexual Liberation in The Scarlet Letter and Song of Solomon"	Indian Journal of Humanities: A Multidisciplinary Quarterly Refereed Research Journal 1.3, 65:69.	National	2011
14.	Nirban, V. S., Devika and Sushila Rathore	ARTICLE IN A JOURNAL "Language Alterations in Internet Relay Chat Discourse".	IJRMT Vol.1, No.2, 93-96.	National	2011
15.	Devika, V. S. Nirban and Sushila Rathore	ARTICLE IN A JOURNAL "Enhancing Communication Through Vocabulary Building",	ELTAI Journal, 3-9	National	2011
16.	Arun Kumar Poonia and Gajendra Singh Chauhan	ARTICLE IN A JOURNAL 'English in a Globalized World: Count Their Aspirations Before You Teach'	'The Indian Journal of English Studies' ISSN-L 0537-1988, Vol. LII	National	2015
17.	Madhusmita Das, Gajendra Singh Chauhan, Arun Kumar Poonia	ARTICLE IN A JOURNAL Advertising in Top National English Dailies: Which Newspaper is Winning The Brands !	'Commonwealth Journal of Commerce & Management Research' Volume 1, Issue 3 (November 2014) ISSN: 2393-851X Impact Factor is 0.612	National	2014
18.	Abhinav Ramana, Prashant Choudhary, Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Advertising Through facebook: Reach And Impact On Youth	Spark International Online eJournal' ISSN – 0975-7929 Vol-VI, Issue-XII	National	2014
19.	Priti Vyas and Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Multimedia Technology Aided Language Learning: A Classroom beyond Chalkboard	ELT Quarterly- A Peer reviewd Journal / ISSN 09750258, Vol. 16 (2-3)	National	2013
20.	Arun Kumar Poonia and Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Power of New Media and Language Change: What's Next?"	The Literati, A Transnational Peer Reviewed Journal ISSN 2248-9576 Summer(3.1)	National	2013
21.	Priti Vyas and Gajendra Singh Chauhan	ARTICLE IN A JOURNAL The Preeminence of Soft Skills: Need for Sustainable Employability	International Journal of Social Science & Interdisciplinary Research ISSN 2277 3630 IJSSIR, Vol. 2 (5),	National	2013

22.	Tejaswi R & Gajendra S. Chauhan	ARTICLE IN A JOURNAL Who Breaks My News? – Business of Breaking News and its Retention Value	Scholarly Research Journal for Interdisciplinary Studies(1295-1308) MAR-APR, 2013, VOL-I, ISSUE-V	National	2013
23.	Gajendra Singh Chauhan & Kumar Neeraj Sachdev	ARTICLE IN A JOURNAL Green Communication: Let the Corporate Walk the Talk	International Journal of Trends in Humanities and Social Science Volume 1 issue 9	National	2012
24.	Kumar Neeraj Sachdev & Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Business Ethics: Employee Loyalty and Whistleblowing	International Journal of Multidisciplinary Management Studies Vol. 2, Issue 9, September 2012, pp. 147-152	National	2012
25.	Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Empowering Education through New Technology: Let Learning be Simple, Human and Valuable	International e-journal Spark. February 2012	National	2012
26.	Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Soft Skills beyond Classroom: Taking the Leaf out of Obama's India Visit	Journal of Soft Skill, June 2011 Vol V No.2 ICFAI Press, Hyderabad	National	2011
27.	Gajendra Singh Chauhan	ARTICLE IN A JOURNAL Advertising through Social Media Networks: Let's Catch up with the Internet Audience.	IJRCM refereed Journal, New Delhi Vol No.1 (2011), Issue No.2 (April).	National	2011
28.	V. S. Nirban	Social and Technology Dimensions of Computer-Mediated Communication	International Journal of Communication. Vol.24, Issue 1. PP- 130 -139.	International	2014
29.	Neerja Vyas and V. S. Nirban	Student's Perception on the Effectiveness of Mobile Learning in an Institutional Context	Research Journal of ELT, Vol 3. Issue 1. PP 26-36.	National	2014
30.	V. S. Nirban and M Raman	Characterizing Language Usage in Formal and Informal Webpage Text Corpus	Journal of Communication and Media Technologies. Volume 3; Issue 4; pp- 17-26.	International	2013
31.	V. S. Nirban and A. Rastogi	Awareness, Uses and Implications of using Web 2.0 for Supplementing Classroom Teaching at Graduate Level.	Research Journal of English Language and Literature. Volume 1: Issue 1; pp- 96-101.	National	2013
32.	Chasul and V. S. Nirban	Characterizing Behaviour of Online Student Community.	Research Journal of English Language and Literature. Volume 1: Issue 1; pp- 89-95.	National	2013

33.	Pushplata and V. S. Nirban	Using Blogs for teaching English	VOICES	International	2012
34.	Oudenhoven, J.P., deRaad, B., Timmerman, M.E., Askevis-Leherpeux, F., Boski, P., Carmona, C., Choubisa, R., Dominguez, A., et al. (2014)	Are Virtues National, Supranational or Universal?	Springer Plus, 3, 223-235. [DOI: 10.1186/2193-1801-3-223] [ISSN: 2193-1801][Scopus & PubMed]	International	2014
35.	Singh, K., & Choubisa, R. (2010).	Empirical validation of Values in Action-Inventory of Strengths (VIA-IS) in Indian context.	Psychological Studies, 55 (2), 151-158. [DOI: 10.1007/s12646-010-0015-4] [Print ISSN: 0033-2968; Online ISSN: 0974-9861][ADAT Indexed-Scopus]	International	2010
36.	Choubisa, R. (2009).	POB: A Comparative Analysis of Positive Psychological Capital amongst Public & Private Sector Employees.	AIMA Journal of Management & Research, August 2009, 3 (3/4), 1-9. [ISSN-0974-9497]	National	2009
37.	Singh, K., & Choubisa, R. (2009).	Effectiveness of Self Focused Intervention for Enhancing Student's Well-Being: An Empirical Investigation.	Journal of Indian Academy of Applied Psychology, 35 (Special Issue), 23-32. [ISSN: 0019-4247]	National	2009
38.	Singh, K., & Choubisa, R. (2009).	Psychometric properties of Hindi translated version of Values in Action Inventory of Strengths (VIA-IS).	Journal of Indian Health Psychology, 4(1), 65-76. [ISSN: 0973-5755]	National	2009
39.	Singh, K., & Choubisa, R. (2011).	Personality Dimensions as Predictors of Happiness in Indian Milieu: An Empirical Confirmation with Different Measurement Approaches.	Indian Journal of Applied Psychology, 48, 18-26. [ISSN: 0019-5073]	National	2011
40.	Choubisa, R., & Singh, K. (2011).	Psychometrics encompassing VIA-IS: A Comparative Cross-Cultural Referential Reading.	Journal of Indian Academy of Applied Psychology. 37 (2), 326-333. [ISBN: 0019-4247]	National	2011
41.	Choubisa, R. (2013).	Towards Effective Electronic Personnel Administration: A Preliminary Employee Perception Survey at a Public Sector Undertaking.	Prashasanika, XXXII(2), 107-126. [ISSN: 0971-6246]	National	2013

42.	Choubisa, R. (2013).	Happiness vis-a-vis Development: Retrospection, Reflections & Ramifications	Journal of Development Management, 1 (4), 383-389. [Print ISSN:2321-0761; Online ISSN:2347-6303].	National	2013
43.	Sangeeta Sharma and Krishna Mohan	The impact of University-Industry Linkages on English Language Teaching.	University News-A Weekly Journal of Higher Education,	N	2010
44.	Sangeeta Sharma.	Role of Advertising in Teaching Soft-Skills	International Publication for faculty Excellence. Volume 1	I	2010
45.	Sharma Sangeeta, Poonam Vyas.	Enhancing teaching in rural India by technology intervention	International Journal of Research in Commerce & Management.Vol 1	I	2011
46.	Shukla, Paurav, Sangeeta Sharma and Raghuvir Singh	Sales Promotion in India. Sales Promotion Techniques: Best Practice from Asia and Europe.	Kim- Shyan Fam et.al. Eds.	I	2010
47.	Das, Madhusmita, Sangeeta Sharma and Preeti Tiwari	Gender Discrimination at Work Place: A Case Study	Indian Journal of Humanities, Volume 01, Issue 01	N	2011
48.	Sharma, Sangeeta and Poonam Vyas	Enhancing Employability through Technology Application	International Journal of Business Management and Research. Vol.1 No. 1	I	2011.
49.	Sharma Sangeeta, Poonam Vyas	Communication: the Omphalus of the Curriculum of Technical Education	Proceedings of the National workshop on Science, Technology and Development Communication, BIT, Noida	N	2012
50.	Vyas Poonam, Sangeeta Sharma	Augmenting Learner Autonomy through Information and Communication Technology (ICT	Spark International Online Journal.	N	2012
51.	Sangeeta Sharma and Krishna Mohan	The impact of University-Industry Linkages on English Language Teaching	Education for Human Resource Development. Edited by Vijaya Deshmukh, Atlantic Publishers.	N	2012
52.	Das, Madhusmita and Sangeeta Sharma	Women in Advertising : Metamorphosis from docile to dynamic	International Journal of Business Management and Research	I	2012
53.	Madhusmita Das and Sangeeta Sharma	Women and Politics : The Game of Power	Asian Academic Research Journal of Social Science & Humanities, Vol.1, Issue 3	I	2012

54.	Sangeeta Sharma and Madhusmita Das	Women in Advertising: Metamorphosis from docile to dynamic	International Journal of Business management, Vol. 2. No.1	I	2012
55.	Madhusmita Das and Sangeeta Sharma	The effect of Television advertising on Body Image of Women	Pragyaa Journal of Management, Volume 3, Issue1&2,	N	2013
56.	Madhusmita Das and Sangeeta Sharma	Stereotyping of women in television advertising and its impact on society	Quest-bi-annual journal of management and research, TIMS, Volume IV, Issue II,	I	2014
57.	Anupam Yadav	e-Course Authorship: an e-module "Contemporary Continental Aesthetics" for the UGC e-PG Pathshala, an MHRD project (National Mission on Education through ICT)	eppg.inflibnet.ac.in	National	2015
58.	Kumar Neeraj Sachdev	Culture, Ecological Sensitivity and Professionals	Creative Space: International Journal, Vol. 3, No. 3, pp. 001-006	I	2015
59.	Kumar Neeraj Sachdev	A Sketch of a Normative Stance of Team Communication	International Journal of Communication, Vol. 24, No. 1, pp. 07-15	I	2014
60.	Kumar Neeraj Sachdev	Nature of Valuational Consciousness in Good Life	Philosophy Study, Volume 2, No. 10, pp. 767-771	I	2012
61.	Kumar Neeraj Sachdev	An Analysis of Ethical Obligations in Business and Professions	Indian Journal of Humanities, Vol. 01, No. 03, pp. 31-38	N	2011
62.	Geetika Shree and Kumar Neeraj Sachdev	Enhancing Quality of Educational System through Moral Development and Positive Psychology	Indian Journal of Positive Psychology, Volume 3 (4), pp. 415-417	N	2012
63.	Lata, Pushp, Umesh Dhyani and Suman Luhach	Inculcating Critical Thinking among Engineering Graduates through Public Speaking Course	ELT Research Journal 2013, 2(4), 156-166. ISSN: 2146-9814.pp 156-166 Available online at: http://www.ulead.org.tr/journal	Internationa I	2013
64.	Lata, Pushp,	Transformation in Learning through Web 2.0 Interactive Instructional Materials for Enhancing Employability of College Students: A Need Analysis Approach,	JSTF:JLSS(Journal of Law and Social Sciences. Vol 2.No.2. 2013. online journal	Internationa I	2013
65.	Lata, Pushp and Devika	Fostering Value - Based Education through Humanities Courses among Engineering Graduates	Journal of Social Sciences and Humanities, Pertanika Journals, Peer reviewed. JSSH Vol. 21 (3) Sept. 2013, ISSN:	Internationa I	2013

			0128-7702 @ Universiti Putra Malaysia Press. 329-340		
66.	Lata, Pushp et. al.	Revisiting R.K. Narayan's Guide on Silver Screen	Language, Literature and Linguistics: 3L The South Asian Journal, Vol 18(1) 2012 the March issue http://www.ukm.my/publ/3L/3LCurrentIssues.html 3L is indexed in Scopus, Linguist List, Malaysian Abstracting and Indexing System (MyAis), Directory of Open Access Journals (DOAJ), Ulrichs Web Serials Directory, EBSCO Host, Open J-Gate, MLA International Bibliography, MLA Directory of Periodicals and Language, Siri Malaysia and Linguistics Behaviour Abstracts (LLBA).	International	2012
67.	Vats, Shreyas and Pushp Lata	The Role of Gender in Interpreting Subtleties of Facial Expressions	Journal of Arts and Culture, a BioInfo Journal, ISSN: 0976-9862 & E-ISSN: 0976-9870, Volume 3, Issue 1, pp.-87-91, 2012. Impact value 4.69	International	2012
68.	Lata, Pushp	Articulating Protest against mass hysteria and senseless violence train to Pakistan and a debt to pay	Literary Voice, Vol. 1 issue 2, 2012, pp20-32. ISSN 2277-4521	National	2012
69.	Gupta, Piyush and Pushp Lata	Embedding Collaborative Teaching in an ESP Course: A Case Study	Published in The Journal of English Language Teaching(India), Vol. 50, Number 1, Jan-May, 2012, pp. 1-6	National	2012
70.	Lata, Pushp and Abhishek Sayal	An Exploratory Investigation on Effective Risk Handling Attitudes of Top Business Leaders in Relation to Their Approaches Towards Innovation	International Journal Of Research In Computer Application & Management, A Double-Blind Peer Reviewed Refereed Open Access International E-Journal - Included In The International Serial	International	2011

			Directories, Volume No. 1 (2011) , ISSUE NO. 9 (NOVEMBER) ISSN 2231-1009 www.ijrcm.org.in		
71.	Lata, Pushp	Streak of Alienated Identification in Jhumpa Lahiri's Works	Atlantic Literary Review, Vol.11 No.1 (January-March2010), New Delhi: Atlantic Publishers, 2010 pp 81-88.	National	2010
72.	Lata, Pushp and Sanjay Kumar	Technology Enabled Teaching of Professional Communication Courses: Problems and Perspectives	Published in The Journal of English Language Teaching(India), Vol. XLIX, Number 3, May-June, 2010, pp. 29-34.	National	2010
73.	Jain, Amit, Pushp Lata and Amita Raj Goyal	Socio-cultural impact of film celebrities on teenagers: an empirical study	International Journal. Indian Culture and Business Management, Vol. 11, No. 3, 2015, pp 308-22. Copyright © 2015 Inderscience Enterprises Ltd.	International	2015
74.	Devika and P Gupta.	"Shakespeare, India Intercultural Performances Theatre and Films."	Teresian Journal of English Studies (TJES) 6(1) (Oct 2014): 101-119. ISSN 0975-6302.	N	2014
75.	Gupta Piyush Devika.	"Reframing Intention Characterization and Narrative of Adapted Film for Distant Viewing: Envisioning Perspectives."	Contemporary Issues in Languages and Humanities 4(3) (Oct 2014) 5-19. 2249-9792.	I	2014
76.	Devika.	"An Insightful Display of Diaspora in Preeti Singh's Circles of Silence."	Literary Voice: a Bi-Annual Peer-Reviewed Journal 1(2) (Mar 2013): 46-42.	N	2013
77.	Devika	"Charismatic Decant of Stylistic Niceties in Doris Lessing Arundhati Roy."	The Literati: A Transnational Peer Reviewed Journal Devoted to Language & Literature 2.2 (Winter 2012): 112-118. Print.	N	2012
78.	Raina, Sunita	"Rationalizing Bt Technology Creating a Biopolitical Space Around Bt Cotton"	History and Sociology of South Asia. Vol 6, No. 2. London, Thousand Oaks: SAGE Publications. 2012.	International	2012
79.	Raina, Sunita	"Review of Climate Change in Asia and the Pacific"	Sociological Bulletin. Vol 61, No. 3. New Delhi: SAGE Publications.	National	2012

Books

SNo	Authors	Title of publications	Details of the journal	National/ International	Year
1.	Gajendra Singh Chauhan	BOOK (self -authored) Language, Media and Society: Essence of Advertising Communication	Rawat Publications, Jaipur.	National	2010
2.	Sanjay Kumar and Pushp Lata	Communication Skills, Second Edition	New Delhi: Oxford University Press (OUP), 2015	National	2015
3.	Sanjay Kumar and Pushp Lata,	English for Effective Communication (for Kerala University)	New Delhi: Oxford University Press (OUP), 2013	National	2013
4.	Sanjay Kumar and Pushp Lata	English Language and Communication Skills	New Delhi: Oxford University Press (OUP), 2012	National	2012
5.	Sanjay Kumar and Pushp Lata	Communication Skills	New Delhi: Oxford University Press (OUP), 2011	National	2011
6.	Lata, Pushp and Sanjay Kumar	Communicate to Conquer: A Handbook of Group Discussion and Job Interviews with DVD	New Delhi: Prentice Hall of India (PHI), 2010	National	2010
7.	Devika sangwan	A Journey from Innocence to Experience: Evolution of Feminist Fiction.	New Delhi: Excellent Publishing House, ISBN 9789383083091	National	2013
8.	Sangeeta Sharma	Technical Communication – Principles and Practice	Second Edition. OUP: New Delhi	National	2011
9.	Sangeeta Sharma	Communication for Engineers.	For south Africa. OUP: SA	I	2013
10.	Sangeeta Sharma	Technical Communication-Principles and Practice.	For Gujarat Technological University. Second Edition.OUP	National	2014
11.	Sangeeta Sharma	Professional Communication.	UPTU, Second Edition. OUP: New Delhi	National	2014
12.	Sangeeta Sharma	Technical Communication-Principles and Practice	Third Edition. OUP. New Delhi	National	2015
13.	Lata, Pushp Devika and Gajendra Singh Chauhan (eds)	<i>Interfacing ELT with Culture and Technology: Directions for New Classrooms,</i>	International Conference Proceedings, 3 rd Rajasthan ELT@I International Conference (8-9 October 2012), BITS, Pilani. New Delhi: Jain Brothers, 2012	National	2012
14.	Lata, Pushp Devika and	<i>Integrating Web 2.0 Technology and Culture</i>	International Conference	National	2013

	Gajendra Singh Chauhan (eds),	<i>in ELT</i>	Proceedings Second vol., 3 rd Rajasthan ELT@I International Conference (8-9 October 2012), BITS, Pilani. New Delhi: Jain Brothers, 2013		
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Book Chapters

SNo	Authors	Title of publications (ISBN number, Books, Monographs, Chapters in books)	Details of the journal (Database in which the journal appears, ex. Scopus; Citation Index; SNIP; SJR; Impact factor of journal; H-Index)	National/International	Year
1.	David Gómez Arredondo and Hari Nair	CHAPTER IN BOOK "Between Café and Cigarillos: Notes towards mapping the research trajectory and the intellectual legacy of Fernando Ortiz through a study of his select works"	in The Contemporary Caribbean: Issues and Challenges, edited by Raymond Izarali and Priti Singh (New Delhi: Shipra). ISBN: 978-81-7541-659-8	National	2012-3
2.	Swaha Das and Hari Nair	CHAPTER IN BOOK "Republican citizenship" in Ashok Acharya, ed.,	Citizenship in a globalizing world, Delhi: Pearsons, 2011. ISBN: 978-81-317-6094-9	National	2011
3.	Kumar Sankar Bhattacharya	CHAPTER IN BOOK "Relational Marginalization of Indranath in Indira Goswami's The Moth-Eaten Howdah of the Tusker."	Indira Goswami: Passion and the Pain. Ed. Uddipana Goswami. New Delhi: Spectrum Publications, 2012. ISBN - 978-81-8344-017-2	National	2012
4.	Kumar Sankar Bhattacharya	CHAPTER IN BOOK "Reappropriating Agency within an Engendered Space: Swades- The Movie."	Reorienting Gender: Geographies of Resistance, Agency, Violence and Desire in Asia. Ed. Anindita Datta. New Delhi: R.K. Books, 2015. ISBN-978-93-82847-41-0	National	2015
5.	Tathagato Chakraborty	Book Chapter Top Heavy Urbanization in West Bengal in	Challenges of Urbanization in the 21st Century Vol. 4 ed. by Kalpana Markandey et. al. New Delhi: Concept Publishing Company, 2013. ISBN 978-81-8069-951-1	International	2013
6.	Sailaja Nandigama	Book Chapter: "How Green are We? Role of Stakeholders, their Lifestyles, Values and Practices in Informing Investment Behaviour in the Indian Context", in	Investing in a Sustainable Future: Integrating Environmental, Social and Governance Factors, edited by Nini S. Gulla. Excel India Publishers: New Delhi, ISBN: 978-93-84869-56-4, pp. 1-6.	National	2015

7.	Shekhawat,S ushila.	CHAPTER IN A BOOK A Comparative Study of Identity Formation and Selection of Choice in Recent Women Writing	Lotus Wine: Critical Responses to Indian Literature in English. Ed. Binod Mishra and Prashant Mishra. Adhyayan Publishers and Distributors.171-189.	National	2015
8.	Chasul and Sushila Shekhawat	CHAPTER IN A BOOK .Techniques for Enhancing Vocabulary.	New Delhi: Jain Brothers. Integration of Web 2.0 Technology and Culture in ELT. Ed. Pushplata, Devika and Gajendra Singh Chauhan.237-242.	National	2013
9.	Devika, Sushila, Rathore and Virender Singh Nirban (2012).	CHAPTER IN BOOK "Unobtrusive Dissemination of the Didactic Teachings through the Indian Folklore".	New Delhi: Atlantic Publishers and Distributors.95-109.	National	2012
10.	Gajendra Singh Chauhan	CHAPTER IN BOOK Cognizance of Media Literacy in Higher Education	'Indian Higher Education At A Crossroads' ISBN 978- 93-5128-153-5, Kalpaz Publications, New Delhi	National	2015
11.	Gajendra Singh Chauhan	CHAPTER IN ANTHOLOGY Sexist Communication in Advertisements: It's Not Fair Honey !	'Celebrating Literary Diversity', Aadi publications, Jaipur ISSN 973-93-82430-58-4	National	2015
12.	Vyas, Priti and Gajendra Singh Chauhan	ARTICLE IN AN EDITED BOOK Intercultural Communication: Barriers and Resolutions	Published in edited volume 'Contributing Sustainability' Victorious Publication: New Delhi	National	2014
13.	Gajendra Singh Chauhan	ARTICLE IN AN EDITED BOOK Language Change and Advertising Communication: Footloose and Fancy Free	Published in an edited volume Language & Society. Ropar: Bhhadal Tech Publications	National	2013
14.	Singh, K & Choubisa, R. (Forthcoming)	Positive Psychology in India: Retrospect & Prospects. In Singh. K. (Editor). Positive Psychology & Its Assessment Tools.	Book Chapter: Springer Dordrecht, Netherlands.	International	2015-16
15.	Choubisa, R., & Shukla, T. (2015).	Positive Psychology & Economic Development: Reckoning Linkages, Needs & Agenda. In Shukla, A. & Dubey,A. (Eds). Mental Health: Psychosocial Perspective (Volume II-Multigroup Analysis) (pp. 66-93)	Book Chapter: Concept Publishing Company, New Delhi ISBN:93-5125-170-5.	National	2015
16.	Sanjiv Kumar Choudhary	Chapter in Book Problems of	Language & Society, Edited by Gurpreet Kaur,	N	2013

		Authenticity in Social Interaction Using Communication Technology	Bhaddal Tech Publications, Business Press India, New Delhi		
17.	Devika	"An Encounter with Labyrinthine Affairs of Life 16. Print. BOOK Chapter	Studies in Women Write English. (Vol. IX). Eds. N Kumar Ray and Rama Kundu	New Delhi: At Publishers Distributors,	2010.

Monographs

SNo	Authors	Title of publications (ISBN number, Books, Monographs, Chapters in books)	Details of the journal (Database in which the journal appears, ex. Scopus; Citation Index; SNIP; SJR; Impact factor of journal; H-Index)	National/ International	Year
1.	Hari Nair	MONOGRAPH "The sovereign and the subjects", Working Paper No. 10-14,	International Seminar on the History of the Atlantic World, 1500-1825, Harvard University.	International	2010

Papers in Conference Proceedings

s. no	Authors	Title of publications	Details of the journal	National / International	Year
1.	Shekhawat ,Sushila	PAPER IN CONFERENCE PROCEEDINGS"Variegated Shades of a Female in Indian Films: A Study of Mirch Masala and Arth".	Language, Literature and Linguistics(I3 2012).Ed. Prof. Daniel Newman. Conference Proceedings. Singapore: Global Science and Technology Forum (GSTF), 2012. 343-348. (Indexed by EBSCO, CrossRef, Proquest , Scopus, Cabell's Directories and Ulrichweb. http://dl.globalstf.org).	International	2012
2.	Nirban,Virender Singh and Sushila Rathore. .	PAPER IN CONFERENCE PROCEEDINGS Functional and Language Usage in Internet Based Communication: A Study of Blogs, Facebook and Twitter	Empowering the English Language Classroom. Ed. Dr. Preeti Bhatt and Mrs. Nanny Tripathi. Conference Proceedings. Jaipur: Malviya Institute of Technology.2013. 278-282.	National	2013
3.	Vyas, Neerja and Sushila Shekhawat .	Films as a pedagogical tool for language teaching".	Proceedings of UGC sponsored national seminar on "Development of communication skills among the under privileged students of rural colleges" 1-2 Feb 2014. Jaipur: S.K Jain and Sons.59-71.	National	2014
4.	Arun Kumar Poonia and Gajendra Singh Chauhan	PAPER IN CONFERENCE PROCEEDINGS Role of English in Tourism Communication in a	The Impact of Social Changes on English Language and Literature (TISCELL2014)/ ISSN 978-81-924212-5-4	National	2014

		Globalized World: Advantage India!			
5.	Gajendra Singh Chauhan	PAPER IN CONFERENCE PROCEEDINGS Save Our Languages: Act Now	ACAH, Japan 2010-Conference Proceedings. The Asian Conference on Arts & Humanities held in Osaka, Japan.	INTERNATIONAL	2010
6.	V. S. Nirban and Chasul	Learning Management System Acceptance Behavior of Students in Higher Education	IEEE Xplore, Proceedings of the IEEE MITE 2014. PP- 108-111, DOI: 10.1109/MITE.2014.7020251	International	2014
7.	Chasul and V. S. Nirban	New Media Technology Acceptance Behavior of Students of Language and Communication Courses	IEEE Xplore, Proceedings of IEEE MITE 2014. PP-62 - 66, DOI: 10.1109/MITE.2014.7020242	International	2014
8.	Choubisa, R. (2015).	The Role of Seasonal Frugal Markets as Precursors of Sustainable Business: An Interpretative Phenomenological Paradigm.	Proceedings of the International Conference on Evidence Based Management (pp-262-267) [Volume II]. BITS Pilani. Excel Publishing House, New Delhi.[ISBN:978-93-84935-18-4)	National	2015
9.	Choubisa, R. (2010).	From Design to Praxis: Evaluation of a Self-guided Internet based Emotional Intelligence Enhancement Program:	In Emotional Intelligence and Leadership: Better Work & Learning Environment. (Edited by Shamira Soren Malekar) Forum for Emotional Intelligence Learning, Excel Books, Mumbai (pp 261-268). ISBN: 978-81-7446-902-1.	National	2010
10.	Sangeeta Sharma and Atin Angrish,	Conference proceedings. “ Targeted Marketing: A way of optimizing the resources through social media			2013
11.	Rajni Singh, Sanjiv Kumar Choudhary, and virender Singh Nirban	Article in Conference Proceedings Gender Differentiation in Use of Internet	Conference Proceedings of International Conference on Empowering the English Language Classroom, Edited by Preeti Bhatt and Nanny Tripathi, MNIT, Jaipur	I	2013
12.	Lata, Pushp and Suman Luhach	Online collaborative language learning: opportunities and challenges	International Conference Proceedings on Empowering English Language Classroom organized by MNIT, Jaipur 8-9 2013, published in, New Delhi : Excellent Publishing House, 2013, pp 105-117	International	2013
13.	Lata, Pushp and Suman	Integrating Web 2.0 Tools for Enhancing Collaborative Writing	Published in Interfacing ELT with Culture and Technology: Directions for New Classrooms, edited	International	2012

	Luhach	Skills: Challenges and Prospects	International Conference Proceedings, 3 rd ELT@I International Conference, BITS, Pilani. New Delhi: Jain Brothers, 2012, pp 83-90		
14.	Lata, Pushp and Rajni Singh	Enhancing Learner Autonomy through Self Instructional Materials	Published in Interfacing ELT with Culture and Technology: Directions for New Classrooms, edited International Conference Proceedings, 3 rd ELT@I International Conference, BITS, Pilani. New Delhi: Jain Brothers, 2012, pp 173-180	International	2012
15.	Lata, Pushp	Integration of Web based Interactive and Multimedia Learning Materials for Off-Campus Students: A Case Study	Conference Proceedings ed. Daniel Newman at Annual International Conference on Language, Literature and Linguistics (L3 2012), Global Science and Technology Forum during 9 - 10 July 2012 at Hotel Fort Canning, Singapore, pp 193-198 3L is indexed in Scopus, Linguist List, Malaysian Abstracting and Indexing System (MyAis), Directory of Open Access Journals (DOAJ), Ulrichs Web Serials Directory, EBSCO Host, Open J-Gate, MLA International Bibliography, MLA Directory of Periodicals and Language, Siri Malaysia and Linguistics Behaviour Abstracts (LLBA)	International	2012
16.	Devika and P Gupta.	Group Dynamics Workplace.”	ICOMBI: Proceedings of International Conference on Management and Business Innovation. Malaviya National Institute of Technology, Jaipur. May 18-19, 2013.	N	2013
17.	Gupta, Piyush Devika.	“Developing Learning Database through Web Image Association.”	Interfacing ELT with Culture and Technology: Direction for New Classroom. Eds. Pushp Lata, Devika and Gajendra Singh Chauhan. Conference Proceedings. New Delhi: Jain Brothers, 2012. 75-82.	N	2012
18.	Devika	“Breaking the barrier move beyond: a charismatic display of self belief Arundhati Roy and N Kapur.”	Language, Literature & Linguistics (L3 2012). Ed. Prof Daniel Newman. Conference Proceedings. Singapore: Global Science and Technology Forum (GSTF), 2012. 308-311.	I	2012
19.	Devika	“Maximizing the Benefits through Creativity: An Approach.”	Creativity and Innovation: Breaking the Barriers to Reach the Bottom of the Pyramid. Ed. Dr. Raghuvir Singh. Conference proceedings. New Delhi: Savera Publishing House, 2012. 103-111. Print.	I	2012
20.	Devika	“Convergence of Culture Margo Lanagan’s Black and Jhumpa Lahiri Interpreter of Maladies.”	Identity, Ethos and Ethnicity: Australia and India. Conference Papers. Eds. Anuraag Sharma and Pradeep Trikha. Ajmer: ARAWLII Publications, 2010. 56-72. Print.	I	2010

Conference Details:

S.No	AUTHORS	PAPER TITLE	DETAIL OF CONFERENCE	NATIONAL/INTERNATIONAL	YEAR
1.	Sanjiv Kumar Choudhary	Methods to post method: Need for overhauling Teacher Education	International Conference on Trends & Innovations in Language Teaching organized by the English department of Sathyabama University, Chennai in association with Regional English Language Office, US Embassy, New Delhi and IEE	International	14-15 November 2014
2.	Rajni Singh and Sanjiv Kumar Choudhary	ELT and ICT interface: Challenges before the Teachers	International Conference on Trends & Innovations in Language Teaching organized by the English department of Sathyabama University, Chennai in association with Regional English Language Office, US Embassy, New Delhi and IEE	International	14-15 November 2014
3.	Sanjiv Kumar Choudhary	Emerging Challenges in ELT: Need for Teacher Capability Enhancement	International Conference on "Language, Literature and Library: Disruptive Digressions and Digital Dimensions" organized by the Society for Analysis, Dialogue, Application and Action (Sadaa) in collaboration with Manipal University, Jaipur	International	22-24 January 2014
4.	Rajni Singh, Sanjiv Kumar Choudhary, and Virender Singh Nirban	Gender Differentiation in Use of Internet: A Case Study	International Conference on Empowering the English Language Classroom organized by the Department of Humanities and Social Sciences, MNIT, Jaipur	International	18-19 January 2013
5.	Kumar Sankar Bhattacharya	"Anatomizing Selfhood: Postcolonial Identity Politics in India's North East."	24th Annual British Commonwealth and Postcolonial Studies Conference, Savannah, GA., USA	International	February 13-14, 2015
6.	Kumar Sankar Bhattacharya	"Reappropriating Agency within an Engendered Space: Swades – The Movie."	Delhi University, International Conference on Re-orienting Gender: Geographies of Resistance,	International	November 19-21, 2014

			Agency, Violence and Desire in Asia, Delhi		
7.	Kumar Sankar Bhattacharya	"Mnemonic Memory and Amnesia in Aruni Kashyap's The House with a Thousand Stories."	Banaras Hindu University, International Conference on Reading/Understanding Fiction in Contemporary Times, Varanasi, UP	International	March 5-6, 2014
8.	Kumar Sankar Bhattacharya	"Unhomed and Deterritorialized: Quest for National Identity in Indira Goswami's the Ahiran."	2014 South Asian Literary Association Conference, Chicago, IL	International	January 8-9, 2014
9.	Kumar Sankar Bhattacharya	"Disnarrating the Events of 1857: Reading J.G. Farrell's The Siege of Krishnapur."	Tufts University, 44th Annual Convention, Northeast Modern Language Association (NEMLA), Boston, MA	International	March 21-24, 2013
10.	Kumar Sankar Bhattacharya	"The 'Other' and its Representation in Kunal Basu's The Yellow Emperor's Cure."	Institute of Advanced Studies in English, International Conference on Language, Literature and Culture, Pune, Maharashtra	International	December 10-12, 2012
11.	Dinesh Yadav	"Forts as space, form, event and action in site-specific performance making"	S N School, Central University of Hyderabad, International Conference IFTR on Theatre and Democracy.	International	July 6- 10, 2015
12.	Dinesh Yadav	NatyaSangeet: Sacred Space, Indian Student Section	Kafka's House, Prague Quadrennial of Performance Design and Space, Prague Czech Republic	International	June 18 - 28, 2015
13.	Dinesh Yadav	"Performing The Kitchen"	Holland Festival, Amsterdam and Les Nuits De Fourviere, Lyon France	International	June 20 - 21, 2015
14.	Dinesh Yadav	"Pagadi Project"	World Stage Design, Royal Welsh College of Music and Drama, Cardiff UK	International	September 5 - 15, 2013.
15.	Dinesh Yadav	"Pagadi: The Turban"	Bharat Rang Mahotsav, International Theatre Festival of National School of Drama, New Delhi	International	January 19th, 2013.
16.	Dinesh Yadav	"Capturing devotionality for theatre festivity"	Budge Budge Institute of Technology Kolkata, IX International Conference of Indian Society of Theatre	International	March 2- 4, 2013

			Research		
17.	Dinesh Yadav	"Abandoned People: Abandoned Places (1947 Indian Partition Stories in Site-specific performances"	Department of Humanities and Social Sciences, BITS Pilani (Goa Campus), IACLALS Annual Conference, 2015 on SPACE, PLACE, TRAVEL, DISPLACEMENT, EXILE	International	February 12 - 14, 2015.
18.	Anupam Yadav	Theoria, Rationality and Social Critique	International Seminar on "Theorizing Today – 25 Years Later" organized by Forum on Contemporary Theory and Dept. of Political Science, M.S. University of Baroda	International	10-11 February, 2014
19.	Anupam Yadav	Aesthetics, Technology and Ethics	International conference on "Toward Ecocultural Ethics: Recent Trends and Future Directions" organized by Dept. of HSS, BITS Pilani Goa	International	9-11 October, 2014
20.	Anupam Yadav	The Quest for the Selfhood and Moral Identity	International Conference on "Self-Knowledge and Moral Identity" organized by IIT, Bombay	International	13-15 January 2015
21.	Anupam Yadav	Alternative Epistemologies and Normative Directionality	10 th International Conference on Philosophy organized by Athens Institute for Education and Research held at Athens, Greece	International	25-28 May, 2015
22.	Sushila Shekhawat	Teaching English language through a Universal Language of cinema	International Conference on Methods, Aesthetics and Genres in English Communication organized by Centre for Professional Communication, University of Petroleum and Energy Studies, Dehradun, UK.	International	4-5 April, 2014.
23.	Sushila Shekhawat	Variegated Shades of A Female in Indian Films: A Study of Mirch Masala and Arth"	Annual International Conference in Language, Literature and Linguistics at Singapore during 9-10 July 2012.	International	9-10 July, 2012

24.	Sushila Shekhawat	Use of multimedia Language Laboratory for Teaching Business Communication	3rd International EITAI Rajasthan Conference on Interface of Language, Technology and Culture at BITS, Pilani, Rajasthan	International	8-9 October 2012.
25.	Chasul and Sushila Shekhawat	Techniques for Enhancing Vocabulary.	3rd International EITAI Rajasthan Conference on Interface of Language, Technology and Culture at BITS, Pilani, Rajasthan.	International	8-9 October, 2012.
26.	Rathore, Sushila and V. S. Nirban	Developing Communication Competence in the Students through Face to Face Conversation.	International conference on Transcending Disciplinary Decadence: Exploring Challenges of Teaching, Scholarship, and Research in the Humanities and the Social Sciences" at IIS University, Jaipur, Rajasthan,	International	18-21 December 2011.
27.	Rathore, Sushila and Geetha B	Teaching Soft Skills to Engineering Students: A Case Study of BITS Pilani	International Conference on Embracing Glocal English organized by ELT@I Rajasthan, Jaipur Chapter at Jaipur .	International	4 to 5 November, 2011
28.	Nirban, V. S. and Sushila Rathore	Using Internet Applications as Online Platforms for Language Learning",	International Conference on Web Based Learning and Library Management', Jaipur Engineering College and Research Center	International	30-31 January, 2011
29.	Geetha. B & Sushila Rathore, presented at the	"Integrating Humanities and Liberal Arts in Engineering Education: Need and Future Directions"	International Conference on Role of Humanities & Social Sciences in Holistic Development of Future Technocrats (RHSSFT 2011), Wagnaghat Solan,	International	23-24 September, 2011
30.	GS Chauhan	Modi's Election Campaign: How to Use Media and Market Politics!	II Asia Pacific International Conference On Changing Business Practices in current environment	INTERNATIONAL	2015
31.	GS Chauhan Arun Punia	Khushboo Gujrat Ki: An Incredible Advertising Campaign	International Conference on Contemporary Research in Tourism and Hospitality: Theory, Practice and Pitfalls	INTERNATIONAL	2014
32.	GS Chauhan	Hinglish on A Platter: Communication Beyond borders	1st Multidisciplinary Conference in Humanities and Social Sciences on Beyond Borders	INTERNATIONAL	2013

33.	GS Chauhan Arun Punia	English Language Teaching in a Globalized World: Count Their Aspirations, Before You Teach	International Conference on Globalization and the Teaching of English	INTERNATIONAL	2013
34.	GS Chauhan	Decoding the Language of Matrimonial Ads: Impact of New Media and Changing Communication Patterns	International Conference on Empowering the English Language Classroom	INTERNATIONAL	2013
35.	GS Chauhan Arun Punia	Power of New Media and Language Change: What's Next?"	Third International ELT@I Conference on Interfacing Language, Culture and Technology	INTERNATIONAL	2012
36.	GS Chauhan and Kumar Neeraj Sachdev	Green Communication: Let the Corporate Walk the Talk	First International conference on Strategic Communication: Learning from Mistakes	INTERNATIONAL	2011
37.	GS Chauhan	Save Our Languages: Act Now	The Asian Conference on Arts & Humanities on EAST MEETS WEST held in Osaka, Japan	INTERNATIONAL	2010
38.	V. S. Nirban and Priyanka Kumari	Discourse Analysis of an Online Academic Discussion	4th International Conference on Communication, Media, Technology and Design organized by Eastern Mediterranean University, Cyprus, in Dubai	International	16 - 18 May, 2015
39.	V. S. Nirban and Chasul	Learning Management System Acceptance Behavior of Students in Higher Education.	IEEE International Conference on Media and Technology in Education held at Tapar University, Punjab	International	December 2015
40.	Chasul and V. S. Nirban (2014)	Media Technology for Enhancing Communication Skills of Tertiary Students	International Conference on Methods, Aesthetics and Genres in English Communication, organized by UPES, Dehradun	International	4-5 April, 2014
41.	Priyanka Kumari and V. S. Nirban	Opportunities and Challenges in Using Web 2.0 Technologies in Higher Education	International Conference on Methods, Aesthetics and Genres in English Communication , organized by UPES, Dehradun	International	4-5 April, 2014

42.	Chasul and V. S. Nirban	SmartClass Technology Acceptance among Secondary School Teachers	International Conference on Language, Literature and Library: Disruptive Digressions and Digital Dimensions organized by Manipal University, Jaipur	International	22-24 January 2014.
43.	V. S. Nirban and Chasul	Technology Acceptance in Education: a Research Review	International Conference on Language, Literature and Library: Disruptive Digressions and Digital Dimensions, organized by Manipal University, Jaipur	International	22-24 January 2014.
44.	Rajni Singh, S K Chaoudhary and V.S. Nirban	Gender Differentiation in Usage of Online Media at the	International Conference on Enhancing English Classroom at MNIT, Jaipur, Rajasthan	International	18-19 January 2013.
45.	Neerja Vyas and V.S. Nirban	Breaking Time and Space Barriers: Using Mobile Technology in Education	3rd International ELTAI Rajasthan Conference" at BITS Pilani, Rajasthan	International	8-9 October 2012
46.	S. Rathore and V.S. Nirban	Developing Communication Competence in the Students through Face to Face Conversation	International conference on Transcending Disciplinary Decadence: Exploring Challenges of Teaching, Scholarship, and Research in the Humanities and the Social Sciences" at IIS University, Jaipur, Rajasthan	International	, 18–21 December 2011.
47.	V.S. Nirban, E. Verma, S. Rastogi and S. Parmani	An Empirical Study on Academic and Personal Utility of Social Media for Student Community	International Conference on Changing Media Paradigms: Issues and Challenges (with special Reference to Social Media)', Amity University, Rajasthan	International	4-5 March 2011
48.	V. S. Nirban and S. Rathore	Using Internet Applications as Online Platforms for Language Learning	International Conference on Web Based Learning and Library Management', Jaipur Engineering College and Research Center	International	30-31 January, 2011
49.	Tathagato Chakraborty	Homosexuality as a Trope in Postcolonial Urban Existence	24th Annual British Commonwealth and Postcolonial Studies Conference, Savannah, GA.,	International	February 13-14, 2015
50.	Tathagato Chakraborty	Consumer Culture and Changing Urban Landscape of Kolkata	Social Science Approaches to Urban Studies: A Four Day workshop organized by Institute of Economic Growth, Delhi, Held at Goa	International	December 19-22, 2013

51.	Tathagato Chakraborty	Risk to Disaster in Chandni Chowk: A Vulnerability Assessment	33rd Annual Conference of the Indian Institute of Geographers and an International Seminar on Population, Development and Disaster Management Organized by the Department of Geography and Disaster Management, University of Tripura.	International	February 8-11 2012
52.	Tathagato Chakraborty	Indian Urbanization: A 'Top Heavy' Experience of Mega City Kolkata	11th Asian Urbanization Conference, Organized by Asian Urban Research Association, Akron, Ohio, USA and Department of Geography. Osmania University, India	International	December 10-13, 2011
53.	Kumar Neeraj Sachdev	Culture, Ecological Sensitivity and Professionals	International Conference on Towards Ecocultural Ethics: Recent Trends and Future Directions, organized by Department of Humanities and Social Sciences, BITS Pilani, K K Birla Goa Campus, Goa, India	International	October 9-11, 2014
54.	Kumar Neeraj Sachdev	An Ethical Revision of Cultural Orientation of Language	Third International ELT@I Rajasthan Conference on Interfacing Language, Culture and Technology, organized by Department of Humanities and Languages, BITS, Pilani, India	International	October 8-9, 2012
55.	G S Chauhan and Kumar Neeraj Sachdev	Green Communication: Let the Corporate Walk the Talk	International Conference on Strategic Communication: Learning from Mistakes, organized by University of Petroleum & Energy Studies, Dehradun, India	International	November 4-5, 2011
56.	Ruchika Sharma and Sangeeta Sharma	"Portrayal of Women in Advertisements: Is It Really Offensive?"	International Conference On Management, Organized at IIM Ahmadabad by AIMS International journal.	International	1-4 January 2011
57.	Ruchika Sharma	"Promoting Youth Acuity for Entrepreneurship in India: Role of Education	Eighth International Conference On Management, Organized at IIM Ahmedabad by AIMS International journal	international	1-4 January 2011

58.	ruchika sharma and Sangeeta Sharma	Use of advertising Messages to teach Entrepreneurship	ninth AIMS International Conference on Management, Organized at FLAME, Pune	international	1-4 Jan 2012
59.	Ruchika sharma	Impact of Advertising Messages on Children's Brand Recall and Recognition: An Experiment Study	10th world business research conference" held in Bangkok	International	6-7 October 2014
60.	Hari Nair	Opening key note address titled "Unsettling European Epistemologies: Mapping the contours of paradigms from the South" (on 21 May 2014) at the South-South Dialogues on New Ways of Democracy: Plurinationalism and Equity	in Redenção and Fortaleza, Ceará, Brazil.	International	21-23 May, 2014,
61.	Hari Nair	Delivered a lecture titled "Public policies in India: Searching for equity in the neoliberal state" (on 23 May 2014) at the South-South Dialogues on New Ways of Democracy: Plurinationalism and Equity	in Redenção and Fortaleza, Ceará, Brazil.	International	21-23 May, 2014,
62.	Hari Nair	Presented a study titled "Tocqueville's India" at the 9 th session (on Friday 9 March 2014) of the	International Conference India in Other Literatures organized by the Department of Germanic and Romance Studies, at the Conference Centre, University of Delhi	International	6 th and 8 th March 2014.
63.	Sangeeta Sharma	Enhancing Employability through Technology Application,	International Conference on Technology and Business Management at IMT Dubai	International	16-18 March, 2010 IMT , Dubai

64.	Sangeeta Sharma	International Conference on Hybridity and News , Vrije Universiteit Brussels	Advertising and Journalism : The innovative ways to lure the customers	International	4-5 December 2014, VU Brussels
65.	Vyas Poonam, Sangeeta Sharma (2010),	“Translation: Procedures and Problems with especial reference to Munsii Premchand’s story Nasha”,	International Conference on Role of Translation in Nation Building, Nationalism and Supra-Nationalism” Instituto Cervantes, New Delhi, India,	International	16-19 December, 2010.
66.	Sangeeta Sharma	Brand Building of Management Institutes through Social Media.	9 th AIMS International Conference at FLAME , Pune from	International	1 st – 4 th January 2012
67.	Vyas Poonam and Sangeeta Sharma (2011),	“Measuring the Efficacy of Constructivist Multimedia Learning Environment: A BITS Pilani Approach”, at	Ninth AIMS International Conference on Management (AIMS-9) Flame, Pune,.	International	January 1-4, 2012
68.	Sangeeta Sharma and Atin Angrish.	“ Targeted Marketing: A way of optimizing the resources through social media” at the SIMSR 8 th Global Marketing conference	K.J. Somaiya Institute of Management Studies and Research, Mumbai on	International	4-5 January 2013.
69.	Vyas, Poonam, Sangeeta Sharma.	“The Importance of English Language in Tourism Industry” International Conference on <i>Tourism and Hospitality Industry: Modern State, problems and perspectives</i> , organized by	CMTHS, HNB Garhwal Central University, Srinagar Garhwal and Department of Hotel Management, Graphic Era University, Dehradun ,	International	11-12 May,2013.
70.	Vyas, Poonam, Sangeeta Sharma.	“Communication Challenges in International Milieu”,	International <i>Business School Conference IBSCON</i> organized by Amity International Business School, Amity University, Noida,	International	15 March, 2013.
71.	Sangeeta Sharma	“ New Idea for Better Society: A Case Study of Idea Advertising Campaigns” at	International conference on Ecocultural Ethics- Recent trends and future directions held at KK Birla Goa	International	9-11 October 2014.

			Campus, BITS Pilani Goa from		
72.	Madhusmita Das and Sangeeta Sharma	“ The persuasive power of women in advertising: Impact on ecology” by at	International conference on Ecocultural Ethics- Recent trends and future directions held at KK Birla Goa Campus, BITS Pilani Goa from	International	9-11 October 2014.
73.	Vidhi Aggarwal and Sangeeta Sharma	“Anthropocentrism to Ecoculturalism : The transformation of Advertising landscape” by at	International conference on Ecocultural Ethics- Recent trends and future directions held at KK Birla Goa Campus, BITS Pilani Goa from	International	9-11 October 2014.
74.	Ankit Singh and Sangeeta Sharma	“Journey of Flipkart: A success story of online shopping” by in the University Jaipur.	International conference on e Business Prospects , Challenges and Implications on	International	27-28 th March 2015 at Manipal
75.	Devika.	“An Exposition to the Challenges Faced by Learners in the Acquisition of Oral Presentation Skills: a Case Study.”	<i>Trends and Innovations in Language Teaching</i> at Sathyabama University, Chennai (in association with RELO and IEEE Xplore)	International	14-15 Nov 2014.
76.	Devika.	“Challenges to rural students: a study of speaking skills.”	International Conference on <i>The Impact of Social Changes on English Language & Literature: an Overview of Past 100 Years</i> at Lingaya’s University, Faridabad	International	7-8 February 2014.
77.	Devika.	“Breaking the barriers to move beyond: a charismatic display of self belief in Arundhati Roy’s <i>The God of Small Things</i> and Manju Kapur’s <i>Difficult Daughters</i> .”	Annual International Conference on Language, Literature and Linguistics (L3 2012) organized by Global Science and Technology Forum (GSTF), Singapore	International	9-10 July 2012.
78.	Gupta, Piyush and Devika.	“Developing Lexical Database through Word-Image Association.” International Conference	<i>Interfacing Language, Culture and Technology</i> organized by the Department of Humanities and Languages, BITS Pilani,	International	8-9 October, 2012.

79.	Devika.	“Maximizing the Benefits through Creativity: An IDEA Approach.”	<i>International Conference on Creativity and Innovation: Breaking the Barriers to Reach the Bottom of the Pyramid</i> organized by JK Padampat Singhania Institute of Management and Technology, Gurgaon	International	17-18 Feb. 2012.
National					
80.	Sanjiv Kumar Choudhary	Methods to Postmethod: Is it time for theorizing Teacher Autonomy in English classroom	59 th All India English Teachers’ Conference on the theme World Literatures organized by the English department of Rajasthan Technical University, Kota in association with Association for English Studies	National	19-21 December 2014
81.	Sanjiv Kumar Choudhary	Teaching of courses in Humanities and Liberal Arts to Engineering and Technology Students: Why, What, When and How	National Conference on “Rethinking the Role of Humanities In Technical Education : Pedagogies and Possibilities “ organized by the Department of Humanities and social Sciences, BITS, Pilani-Hyderabad Campus	National	18-19 October 2013
82.	Sanjiv Kumar Choudhary	Problems of Authenticity in Social Interaction Using Communication Technology	National Conference on Changing Trends in Language and Society organized by the Department of Social Sciences, IET, Baddal in association with Punjab Technical University, Jalandhar	National	20-21 January 2012
83.	Neerja Vyas and Sushila Shekhawat	Film as a pedagogical Tool for Language Teaching	UGC sponsored National Seminar on Development of Communication Skills Among the Underprivileged Students. Organized by Department of English, SBTPG College, Lachhmangarh	National	1-2 Feb 2014
84.	GS Chauhan Arun Punia	<i>The significance and Role of Tourism Advertising in Destination Image: Time for a Proper Research</i>	National Conference on <i>Consumer Behaviour in Hospitality and Tourism Industry</i>	National	2015

85.	GS Chauhan	<i>Sexist Communication in Advertisements: It's not Fair Honey!</i>	National Seminar on <i>Forthcoming Feminisms: Gender Activism in Law, Literature & Society</i>	National	2014
86.	GS Chauhan Tejaswi	<i>Who Breaks My News? – Business of Breaking News and its Retention Value</i>	National Conference on <i>Media and communication</i>	National	2013
87.	GS Chauhan	<i>Language Change and Advertising Communication: Footloose and Fancy Free</i>	National Conference on <i>Changing Trends in Language and Society</i>	National	2012
88.	Kumar Neeraj Sachdev and GS Chauhan	<i>Business Ethics: Employee Loyalty and Whistle Blowing</i>	National Conference on <i>Ethics in Business: In the Era of Cut Throat Competition</i>	National	2011
89.	V. S. Nirban and Chasul	Technology Usage for Underprivileged Students to Improve their English Communication Skills	UGC sponsored National Seminar on Development of Communication Skills Among the Underprivileged Students. Organized by Department of English, SBTPG College, Lachhmangarh	National	1-2 Feb 2014
90.	Sailaja Nandigama	How to do Ethnography & Participant Observation	Intensive Workshop on Research Methodology at BITS Pilani, Rajasthan	National	9-11 February, 2015
91.	Sailaja Nandigama	How green are we? Role of stakeholders, their lifestyles, values and practices in informing investment behaviour in the Indian context	UGC Sponsored National Seminar on "Investing in a Sustainable Future: Integrating Environmental, Social and Governance Factors"	National	24th & 25th April, 2015
92.	Kumar Neeraj Sachdev and Geetika Shree	Understanding Ecological Sensitivity Among Professionals	UGC Sponsored National Seminar on Environmental Ethics: Perspectives from the World Religions, organized by Department of Guru Nanak Studies, Guru Nanak Dev University, Amritsar, India	National	February 25-26, 2014
93.	Kumar Neeraj Sachdev	An Analytical Study of the Relation between Ethics and Professions	UGC Sponsored National Seminar on Applied Ethics: Emerging Issues and Response of World Religions, organized by	National	September 26-27, 2012

			Department of Guru Nanak Studies, Guru Nanak Dev University, Amritsar, India		
94.	Kumar Neeraj Sachdev	Nature and Relevance of Ethical Communication in a Cybernetic Society	National Conference on Recent Trends in Language and Society, organized by Department of Social Sciences, Institute of Engineering & Technology - Bhaddal, Ropar, India	National	January 20-21, 2012
95.	Kumar Neeraj Sachdev and G S Chauhan	Business Ethics: Employee Loyalty and Whistle Blowing	National Conference on Ethics in Business: In the Era of Cut Throat Competition, organized by Department of Management Studies, Krishna Institute of Engineering & Technology, Ghaziabad, India	National	September 17, 2011
96.	Kumar Neeraj Sachdev	Ethical Basis of Economic Order for Business and Professions	National Seminar on Philosophy for a New Economic Order, organized by Department of Philosophy, Panjab University, Chandigarh, India	National	March 29-30, 2011
97.	Ruchika sharma and Sangeeta Sharma	Teaching through innovative pedagogy	National Symposium on Interrogating new Worlds Of English Language Teaching, organized at Maharaja Ganga singh University, Bikaner and ELTI, IASE, Bikaner	National	24-25th February 2012
98.	Hari Nair	“Democracy and the Gandhian Constructive Programme: The case of university education” at the National Seminar <i>The future of India’s democracy: Social, economic and political aspects</i>	organized by the Department of Political Science, University of Delhi	National	30 th and 31 st of January 2015
99.	Hari Nair	Participated in the “Reading Gandhi Workshop” held under the auspices of the Institute for Life Long Learning,	University of Delhi	National	26-27 August 2011.

100.	Sangeeta Sharma	Building Brand Preferences through Advertising: Does it really work for rural market in India?,	4 th IIMA Conference on Marketing in Emerging Economies at IIM Ahmedabad from	National	5 th -7 th January 2011
101.	Madhusmita Das and Sangeeta Sharma.	“ Are women aware of their rights: An empirical study presented in National Seminar on Female foeticide and Gender violence: The human rights perspective at	University of Rajasthan, Jaipur,	National	11 th -12 th August 2012.
102.	Madhusmita Das and Sangeeta Sharma	“Driving Force of Advertisements Behind Women’s Health and Beauty” at the Tenth Conference of Indian Association for Social Sciences and Health on “Health, Regional Disparities and Social Development” organized by	Centre of Social medicine and Community Health School of Social Sciences, Jawaharlal Nehru University, on	National	21-23, November 2012
103.	Sangeeta Sharma and Madhusmita Das	“Honour Killing: Shame to the humanity” in National Conference on Honour Killing: The mind and the mindset challenges and remedies,	organized by Nehru studies centre , Dept of Political Science, University of Rajasthan, Jaipur.	National	12-13 January 2013.
104.	Sangeeta Sharma and Madhusmita Das	“ Odyssey of Women in Advertising: A case study of Lux” at	3rd Biennial Conference held at AMSoM Ahmedabad University	National	3-4 April 2014.

23. Details of patents and income generated: We did not have any patents for the period 2010-15.

24. Areas of consultancy and income generated: We did not have any consultancy for the period 2010-15.

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad: Dinesh Yadav, Royal Welsh College of Music and Drama, Cardiff UK. 2013

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

a) National committees:

b) International committees:

c) Editorial Boards

1. Sanjiv Kumar Choudhary, Editorial Board Member, International Journal of English Linguistics (Bimonthly), Canadian Centre of Science and Education, Toronto, Canada, 2014 onwards
2. Sanjiv Kumar Choudhary, Editorial Board Member, English Language Teaching (Monthly), Canadian Centre of Science and Education, Toronto, Canada, 2014 onwards
3. Devika, Executive Editor, Contemporary Issues in Languages and Humanities, India, 2014 onwards
4. Kumar Neeraj Sachdev, Member, Editorial Board, International Journal of Communication, New Delhi (2007-2008, 2011)
5. Pushp Lata, Member of Editorial Board of Arab World English, International Journal
6. Pushp Lata, Arts and Humanities from BIOINFO (Associate Editor, 2013-14)
7. Pushp Lata, ELT Research Journal (Guest Editor, 2014)
8. Pushp Lata, Journal of Education from JSTF (Co editor)
9. Sangeeta Sharma, Member of Editorial Board of Journal of Humanities, Tripura. 2011
10. Sangeeta Sharma, Member of Editorial Board JK Journal of Management & Technology, Vol. 3(2), ISSN 0975-0924, Gurgaon. 2012
11. Sangeeta Sharma, Member of editorial board for Innovation: The Journal of Management, Poddar Institute of Management, 2012
12. Sangeeta Sharma, Member of Editorial Board of E-Journal for Humanities in Technical Education, Marwadi Education Foundation's Group of Institutions, Rajkot, Gujarat, 2013

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

- Hari Nair participated in the *Workshop on Effective Teaching and Learning*, 18-20 July 2015 at BITS Pilani, Goa Campus organized by Quality Assurance and Assessment Imperative of Mission 2015 with three invited resources persons from the Centre for the Development of Teaching and Learning, National University of Singapore as well as one invited resources person from Wipro Mission10X.
- Dinesh Yadav participated in 'Awareness- Raising & Capacity Building Workshop' on UNESCO 2003 Convention for the safeguarding of Intangible Cultural Heritage. 2- 4 December 2014, Sangeet Natak Academy, New Delhi. Organized by UNESCO and Sangeet Natak Academy New Delhi.
- Anupam Yadav participated in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus.
- Sushila Shekhawat participated in a ten day International Workshop on Imaging Cinema: A Workshop on Emerging Trends in Filmmaking in IITM, Chennai during 1-10 June 2012.

- Sanjiv Kumar Choudhary participated in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus.
- Devika participated in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 201 at BITS Pilani, Pilani Campus.
- Virendra Singh Nirban participated in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus.
- Virendra Singh Nirban participated in the *Intensive Workshop on Quantitative Research Methodology: Hands-on Experience on SPSS* organized by Department of Management, Chitkara University, Punjab, from 17-19 June 2014.
- Sangeeta Sharma participated in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus.
- Sangeeta Sharma attended two days workshop on “New Strategies for Centre for Women’s Studies” at CWS centre at University of Hyderabad, Hyderabad on 28-29 August 2011.
- Tathagato Chakraborty: “Social Science Approaches to Urban Studies”- Four day Workshop organized by Institute of Economic Growth, University of Delhi with ICSSR. India International Center, Goa. December 2013.
- Tathagato Chakraborty: Research Methodology in Geography, Organized by Department of Geography, University of Delhi. September, 2012.
- Choubisa, R. (2014). Attended a Two Day workshop on 'Data Analytics and Using R for Statistical Analysis' organized by Department of Management at BITS Pilani during 22-23 November, 2014.
- Choubisa, R. (2011). Participated in the Advanced Winter School on “Life and Thought of Gandhi” organized by Indian Institute of Advanced Studies, Shimla (H.P) headed by Prof. Tridip Suhrud (Sahitya Academy Awarded) from 1-15 December, 2011.
- Choubisa, R. (2010). Participated in a workshop on “QIP Workshop on Latest developments in Positive Psychology held at Indian Institute of Technology, Delhi on January 15, 2010.
- Raina, Sunita participated in a workshop on “The Theory Question in Indian Sociology” at the Indian Institute of Advanced Study, Shimla. July 13-14, 2012.

28. Student projects:

percentage of students who have done in-house projects including inter-departmental projects: 100%

percentage of students doing projects in collaboration with other universities/ industry / institute : 100% (All students go for PS-I/PS-II)

29. Awards / recognitions received at the national and international level by faculty

- In December 2011, the doctoral thesis of Hari Nair (joined HSS @ BITS Pilani in Dec 2011) titled *Contra imperio: El discurso de derecho natural y la autonomía de los indios americanos* won the special mention (*mención honorífica*) in the competition for the Edmundo O’Gorman prize for the best doctoral dissertation at any Mexican university in the field of Historiography and Theory of History awarded annually by

the Instituto Nacional de Antropología e Historia under the auspices of the Consejo Nacional para la Cultura y las Artes, México.

- In January 2015, the Organizing Committee of Prague Quadrennial has commissioned Dinesh Yadav to curate *Indian Section of Countries and Regions* and *Student Section* in Prague Quadrennial of Performance Design and Space 2016, June 18 - 28 2016, Prague (Czech Republic).
- Sangeeta Sharma received AIMS Outstanding Editor's Award, 2012 by The Association of Indian Management Scholars, International, USA
- Sangeeta Sharma received Distinguished Educator Award, 2013 by Discovery Education Media Pvt.Ltd, at Hotel Park New Delhi
- Received best paper award for "Odyssey of Women in Advertising: A case study of Lux" by Sangeeta Sharma and Madhusmita Das at 3rd Biennial Conference held at AMSoM Ahmedabad University on 3-4 April 2014.
- Dr. Pushp Lata received the Best Paper Award for the paper presented on "Enhancing Employability Prospects of College Students from Rural Background: Problems and Opportunities" at International Conference on Trends and Innovations in Language Teaching held at Sathyabama University, Chennai in collaboration with RELO and IEEE during 14 -15 November 2014.
- Dr. Pushp Lata has also been awarded with Shiksha Ratan Award by India International Friendship Society for meritorious Services and remarkable performance. 27 Academicians across the country were felicitated with this award for their services and out of 27, there were nine women achievers. The ceremony was held at Speaker Hall, Constitution Club on 26 May 2011. The awards were given away by the Honourable Governor of Arunachal Pradesh General J.J.Singh and ex Governor of Tamil Nadu Mr. Bhisam Narayan Singh and ex Director CBI, Mr. Jogindra Singh.
- Dr. Sailaja Nandigama has been recognized as a spot study expert by the Indian Government for the Prime Minister's Award for Excellence in Public Administration (study conducted in Gujarat in December 2014).
- Sunita Raina received an Award of Distinction for her Masters and M.Phil Degrees at Jawaharlal Nehru University, New Delhi, in 2002.
- Choubisa, R : Prof Anima Sen Award for Best Research Paper Awarded by NITTR, MHRD, India
- Choubisa, R. : Best Research Paper Award by All India Management Association, New Delhi.
- Choubisa, R.: Certificate of Honor and Best Research Paper Award by HPCL & TISS at Tata Institute of Social Sciences, Mumbai
- Choubisa, R. : Council of Scientific & Industrial Research (CSIR) travel grant to attend and present a paper at an international conference abroad (TG/4884/10-HRD)
- Choubisa, R. :Indian Council of Medical Research (ICMR) fully funded travel grant for Non-Medical Scientists to attend and present a paper at an International conference abroad (Sanction Ref No. 3/2/TG-17/MPD-2011)
- Choubisa, R.: Indian Council of Social Science Research (ICSSR) partial travel grant to attend and present paper in International Conference abroad (Sanction Ref. No. Con-34, WCPS/2011-1C).
- Choubisa, R: Indian Council of Social Science Research (ICSSR) partial travel grant to attend and present paper in International Conference abroad (Sanction Ref. No. CON/64/2014-ICS)

Awards / recognitions received at the national and international level by doctoral/post-doctoral scholars and students: None

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

- Theatre Design Workshop at BITS Pilani, 15 December 2014 - 5 January 2016, funded by National School of Drama, New Delhi. The workshop was facilitated by; Prof. Robin Das (eminent theatre and film personality, former head of design at National School of Drama), Mr. Rajesh Tailang (famous film actor and screenwriter), Prof. Ravi Chaturvedi (former head of drama dept. University of Rajasthan and head of School of Media and Cultural Studies, Central University of Rajasthan).
- Workshop on “Computer awareness” for women in and around Pilani on 4 November 2010, Resource person Dr V.S Nirban (UGC Funded)
- Organized a panel discussion on Legal Literacy: Are we aware of our rights on 15 Oct 2011. Resource persons Mrs Alka Bisaria, High court Lawyer, Jaipur and Dr Bulbul Dhar, Director CWS, New Delhi (UGC funded)
- Organized Advance level of workshop on “Computer Awareness” on 21 January 2012 by Dr V.S. Nirban (UGC funded)
- Workshop on “Obesity management” for faculty of BITS on 17 November 2012, Resource person Dr R.P. Pareek (UGC funded)
- Pushp Lata as Convener and Dr. Devika and Dr. G.S Chouhan as co conveners organized the Third ELT@I International Conference on Interfacing Language, Culture and Technology, October 8-9, 2012 at BITS Pilani, Pilani campus. 135 delegated from India and Abroad participated and presented their papers. Funding was generated by registration fee and sponsorship.
- Sailaja Nandigama, Tanu Shukla and Rajneesh Choubisa (Conveners), coordinated the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus. It was a self-funded programme. The funding was generated through registration fee from the participants.

31. Code of ethics of research followed by the Department:

The department follows the code of ethics specified by the Institute. It is detailed in the SSR.

32. Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
UG/ MSc Tech General Studies 2010-15		56	34	100%	100%
PG		0	0	0	0
MPhil		0	0	0	0
Ph D		4	16		One graduated in 2014

33. Diversity of students				
Name of the Programme (refer to question no. 4)	% of Students from the Same University	% of students from other universities within the State	% of students From Universities outside the State	% of students from other countries
MSc Tech General Studies	100%	0	0	0
Ph D	0	10.53%	89.47%	0

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

NET: 4 SET: 1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	Not applicable
PG to M.Phil.	Not applicable
PG to Ph.D.	Not applicable
Ph.D. to Post-Doctoral	Not applicable
Employed	
☑ Campus selection	39.42%
☑ Other than campus recruitment	we don't have data
Entrepreneurs	we don't have data

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	26.31%
from other universities within the State	10.52%
from universities from other States	42.10%
from universities outside the country	21.05%

Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: 6

38. Present details of departmental infrastructural facilities with regard to

- Library: We have a central library facility.
- Internet facilities for staff and students: Wi-fi and broadband at office, classrooms, labs, hostels and staff flats.
- Students' laboratories: Creative Media, Language and Music Labs

d. Research laboratories: None

39. List of doctoral, post-doctoral students and Research Associates

- **from the host institution/university: None**
- **from other institutions/universities:** All doctoral, post-doctoral and research associates are from other universities as given below.

S.NO.	NAME (Research Scholars)	S.NO	NAME (Research Scholars)
1.	Ms. Geetika Shree	13.	Ms. Priyanka kumari
2.	Mr. Arun Kumar Poonia	14.	Ms. Shivangi Priya
3.	Ms. Suman Luhach	15.	Ms. Nidhila S.
4.	Mr. Piyush Gupta	16.	Mr. Deepak Kumar
5.	Ms. C.V. Jayanthi	17.	Ms. Shalini Joshi
6.	Ms. Rajni Singh	18.	Ms. Seema Sinha
7.	Ms. Chasul	19.	Name (Research Associates
8.	Ms. Neerja Vyas	20.	Ms. Bandana Sachdev
9.	Mr. Mohit Sharma	21.	Ms. Madhusamita
10.	Ms. Dolly Seehra	22.	
11.	Ms. Swarupa Deb	23.	Name (Post Doc Student)
12.	Ms. Vidhi Agarwal	24.	Jyoti Choubisa

40. Number of post graduate students getting financial assistance from the university.

We do not have any post-graduate students.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

We have two new minor programmes:

1. Minor in Film and Media
2. Minor Philosophy, Economics and Politics
 - Review by experts external to BITS Pilani
 - Cross-campus university wide discussion
 - Feedback of students, who had opted for courses at the Dept. of HSS
 - Assessment by faculty members of the Dept. of HSS

42. Does the department obtain feedback from

- i. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? The individual faculty members have substantial autonomy in the preparation and implementation of the course hand out; evaluation components; as well as suggesting text book and reference books. The faculty members also have the opportunity for peer discussion.
- ii. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? The student feedback, both qualitative and quantitative, of the instructor(s), curriculum and teaching-learning-evaluation are conducted per course every semester. This feedback is reviewed by the Instruction Division as well as the Head of the Department and communicated to the individual faculty members after the course grades of the students have been declared.
- iii. alumni and employers on the programmes offered and how does the department utilize the feedback? Quality Assessment and Assurance Team of Mission 2015 is currently undertaking the process of collecting feedback from

employers on the performance, knowledge and skills of BITS graduates.

43. List the distinguished alumni of the department (maximum 10):

NIL

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

- Lecture titled “Evolving Nature of the Indian State” by Shri RN Das (IAS '71, Gujarat cadre and former Chief Information Commissioner of Gujarat) followed by an interactive working session with the resource person and the students of the courses “Modern Political Concepts” and “Contemporary India” - Tuesday 3 April 2012, 11 am to 1 pm, 1210 FD-1.
- Lecture titled “Arts and Technology” by Prof. Peter Cooke (Prof. and Head, School of Drama, Carnegie Mellon University. 18 November, 2012, 11 am to 1 pm, Room No. 5104.
- Lecture Titled “Literature from Conflict Zone” by Siddhartha Gigoo (Eminent writer from Kashmiri Pandit Community) followed by an interactive session with the IC and the students of the course “Popular Literature and Culture of South Asia” - Friday, 05 April, 2013, 3pm-4pm, 1207 FD-I.
- Invited lecture given by Dr. Dev N. Pathak (South Asian University, New Delhi), on Research Methodology during the in the *Intensive Workshop on Research Methodology* organized by HSS Department, BITS Pilani from 9-11 February, 2015 at BITS Pilani, Pilani Campus.

45. List the teaching methods adopted by the faculty for different programmes.

- Teaching-Learning *in situ* for the course Main Currents of Modern History (Hari Nair as IC) - A small group of students visited the Albert Hall Museum, Jaipur (Sun 17 Nov 2013), where each student made a succinct presentation at different galleries inside the museum. A student thus acted as the guide for the remainder of the group at the Egyptian collection as well as the Arms, Musical Instruments, Textiles, Ornamented metal objects, Jewellery, Coins and currency galleries. Each student studied the corresponding theme individually prior to the visit but all of them learnt collectively through cooperation and articulation of the knowledge they had acquired at the site.
- For the course Gandhian Thoughts (Hari Nair as IC) student learning included activities within and outside the classroom: Learning to spin the *charkha* (where the learning outcome was aimed at understanding the idea of swaraj as beginning with oneself; the dignity of manual labour in an industrial age; as well as the importance of economic self-sufficiency); learning through student visits (15 Nov 14 and 22 Aug 2015) to the National Gandhi Museum and Library, Raj Ghat and Gandhi Smriti at Tees January Marg in Delhi.
- For the courses Modern Political Concepts/Main Currents of Modern History/Gandhian Thoughts (Hari Nair as IC) self-study assignments (written followed by oral presentations) complied with BITS Pilani *Academic Regulations* 4.01. These assignments aided in inducing greater academic rigour in the collection of data, critical thought, structured presentation of arguments as well as persuasiveness in written and oral expression.
- Learning by Seeing for the course Theatre Arts: acting and production (Dinesh Yadav as IC)- A small group of students visited the international theatre festival “Bharat Rang Mahotsav” organized by National School of Drama, New Delhi. The students were allowed to watch plays and performances. The students did a critical analysis of the presentation style, content, lighting, scenography, costume and acting of the performances they witnessed and evaluated upon their work.

- Learning by Doing for the Course Theatre Arts: “Acting and Production” and “Lighting Design” (Dinesh Yadav as IC) - A mixed group of students from Hindi Drama Club of both the courses, organized a three days theatre festival at BITS Pilani 8-11 October 2013. The students had hands-on experiences of organizing a festival in the areas of play production; scheduling, set design and execution, lighting, rigging, focus, stage management and production design, production management and publicity.
- Learning by observing for the course Performance Design (Dinesh Yadav as IC)- All students were asked to visit Pilani Town in the early morning hours (7-8 AM) and click photos of a dramatic space of their choice. These photographs they developed in a possible setting for the play Romeo and Juliet by going through the procedure of Image Reading and Model Making.
- For the course Introductory Philosophy (Anupam Yadav as IC) the students were asked to write assignments to discuss philosophical issues and problems from different science and engineering streams for an interdisciplinary understanding and solutions.
- For the course Symbolic Logic (Anupam Yadav as IC) students were asked to write assignments with a view to relate logic to many areas like science, mathematics, computer science, law, rhetoric to analyze the role of logic as a tool.
- For the course Comparative Indian Literature (Somdatta Bhattacharya as IC), self-study assignments were submitted by the students that aided the bringing together of theoretical understanding and practical application in the field of literary studies.
- For the course Cultural Studies (Somdatta Bhattacharya as IC), an in-class “cultural self-assessment” exercise was conducted on 31.08.15 where students had to respond in writing to a set of questions that involved critically examining their identities as cultural beings and how that can affect their processes of communication.
- For the course Linguistics (Sanjiv Kumar Choudhary as IC) students were asked to conduct questionnaire survey and study language attitude among various language groups and make presentations of their findings in the class. In another semester, for ensuring hands-on experience on application of linguistics theories, the students were encouraged to take up some aspects of linguistics and apply them to their First Language and present them before the class.
- For the course Current Affairs (Sanjiv Kumar Choudhary as IC) students had created video conferencing discussion forum to carry forward their classroom discussion and also to help students, who could not participate in classroom discussion due to paucity of time or their shy/introvert nature.
- In the course “Creative Thinking” the students’ were asked to visit the Birla museum and observe models towards suggesting improvements. Other activities in the course included photography of the nature and birds/ animals, designing a novel article or introducing a new idea to tackle the problems, and dance workshops.
- Reporting and Writing for Media (a print media oriented course) truly enables the students to design their own Course Newspaper (The View) and broadcast campus News Bulletins. It provides an opportunity to work as an Editorial team and take their own decisions about the news values and content of the stories.
- Copywriting prepares the students to chisel their marketing writing and plan their own saleable CVs, Brochures and WebPages for promoting their own business or the client’s.
- For the course Print and Audio Visual Advertising students are trained to design the advertisements for all the media and then they produce their own advertisements taking care of the target audience. The hands on experience gives them a lot of confidence
- For the course Introduction to Mass Communication, case studies were integrated with the class room discussions in order to promote an interactive atmosphere in the class; self-reading assignments are given and group discussions are conducted on the same.

- For the course Business Communication, relevant topics were given to the students for presentations; case study approach was used for almost all the topics as it is a skill based course; peer evaluation was encouraged; Group Discussion topics were selected keeping in mind the expectations of the placement companies.
- Teaching methods for theoretical and practical music learning courses are by classroom teaching, Raag and Taal presentation, observation, understanding and listening session of CDs and live performances. (A.K. Rai).
- For Creative Writing, Language Lab Practice, Cinematic Adaptation and Technical Report Writing submission of assignments to newspapers (published) peer feedback, individual feedback, recording of presentations, conversations, language games, worksheets, clippings of movies, library visit, museum visit, etc. are used.
- For the course Professional Ethics (Kumar Neeraj Sachdev as IC) students are encouraged to bring in real time case studies to discuss the ethical issues in professions.
- For the course Applied Philosophy (Kumar Neeraj Sachdev as IC) students are encouraged to apply comprehensive philosophical perspective that spans over ethical, logical, epistemological and metaphysical perspectives to comprehend and appreciate the complexity of issues such as abortion, euthanasia, politics and the problem of dirty hands, etc. in the real world.
- In Effective Public Speaking students are encouraged to write their blogs and post comments on others' blogs. They are divided into different groups and are asked to discuss the drafting of a speech topic which is allotted to them. The students are asked to deliver their speeches in sky lawns, ITC Lawns and NAB Lawns on Sundays or holidays so that they get a practice of delivering a big crowd in open spaces.
- In Cross Cultural Skills students are asked to make a cultural profile of their next door "winggie" in their hostels. They are also made to discuss case studies based on cultural misunderstandings, use movies and novels of different languages and countries to understand different cultures and their traditions, values and thought process for becoming a global citizen and a good global professional.
- In course *Introduction to Gender Studies* (Sailaja Nandigama as IC), students prepared questionnaires (2 per group) through the help of Problem Based Learning techniques (a student-centered pedagogy) and a thorough interaction with the IC and Prof. Sangeeta Sharma. The questionnaires were then administered through field work by the students. Data collection, interpretation, Audio/video recording of the interviews, Powerpoint Presentations, and field report submission helped the General Studies students to gain hands-on research experience needed for future employment opportunities.
- In courses Environment, Development, and Climate Change; Development Theories; and Public Policy (Sailaja Nandigama as the IC), students were asked to prepare reviews of selected papers relevant for the course. They were also asked to conduct self-study of a chosen topic in groups of 4 or 5. The groups were then trained in conducting group presentations (with ppt and Prezi) to their peers.
- Documentaries and films are given to the students for in depth understanding along with questions based on those for effective conceptualizations of several issues related to Globalization. (IC- Introduction to Globalization)
- For the course Mass Media Content and Design (IC), specific Lab based Practical components were designed to give students a hands on experience on creating content for various media channels. For the course Computer Mediated Communication (IC), recent research papers were used as course text to give an in-depth insight to students on the various dimensions of New media and its influences on human behaviour.
- For the courses on **Introductory Psychology, Organizational Psychology and Human Resource Development** students were given research oriented projects, where they are made to understand the social scientific research methodology by engaging in and doing the

projects in a time bound manner.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- The aims and learning outcomes are mentioned in the course hand out. The evaluation components of the course seek to correspond to these learning outcomes. The students provide feedback on the course towards the end of the semester on all aspects of the course and the feedback is registered by the Instruction Division and communicated to the individual faculty member via the Head of the Department after the grades have been declared for the corresponding course, so that the instructor may correct course without prejudicing the performance indicators of the students.
- Any course offered by the instructor has a clear set of objectives and evaluation plans. The course MGPA is one indicator that highlights how the course contents are assimilated by the students and how the instructors get their feedbacks is another way to understand the fine tuning of objectives with their outcomes.
- Handouts are updated to include latest developments in the field.

47. Highlight the participation of students and faculty in extension activities.

- Two students, Prince Singhal and Sharmishtha Balwan participated and Exhibited in Prague Quadrennial 2016 at Prague, Czech Republic.

48. Give details of “beyond syllabus scholarly activities” of the department.

- In-house seminar of the department was/is being routinely organized for doctoral scholars and faculty members since 2012-13 (II), where scholars and faculty members present their current research work in a non-hierarchical environment. Both scholars and faculty members had the opportunity of functioning as convenors/chairs/discussants/presenters in these seminar sessions.
- A scholarly event *Engaging with the Humanities* was held on 11 November 2013, 17-1930 hrs in R. No. 1225. The event began oral presentations by first-degree students of science and engineering of their academic work in the Humanities based on their written work that submitted to the jury. This session was followed by a panel discussion led by faculty members that inquired into the role of the Humanities in a Science and Technology university like BITS Pilani.
- The Dept. routinely conducted workshops, mock interviews and group discussions for placement and for higher studies.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- The Department has been enriching the skills and talents of non- teaching staff (technical and non-technical) through regular capacity building workshops to train them in their English speaking and writing skills, general etiquette and professional behavior.

- The department has been instrumental in its partnership with Work Integrated Learning Programmes (WILP) and Practice School programmes through the university's initiatives to conduct Human Resource Development training for different corporate executives. The faculty members have regularly offered their expertise as Resource Persons for several corporates (L&T, ABG, BALCO, HZL,) within and outside the university.
- The Dept. regularly organizes workshops on communication skills for school teachers and students.
- Every semester the faculty of the department conducts mock job interviews and group discussions to help the students get through their placements successfully.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

1. Faculty members with national and international experience represent a variety of disciplines in the Humanities and Social Sciences
2. Department offers approximately 40 courses per semester to nearly 3000 students
3. A strong pool of the faculty members who prepare the engineering graduates for better placement through soft skills training.
4. Several faculty members of the department hold important administrative positions in the Institute.
5. Interdisciplinary courses taught at the department (for example, courses on Digital Humanities, Environment, Development and Climate Change, Globalization) enable the faculty to connect Engineering and Basic Sciences with disciplines in the Humanities and Social Sciences.

Weaknesses

1. Students of General Studies have limited opportunities.
2. There is need to develop new higher degree program

Opportunities

1. For creating a new first degree programme in Humanities and Social Sciences
2. For initiating a Master's programme in Humanities and Social Sciences
3. For conducting interdisciplinary research projects involving Humanities, Social Sciences, Natural Sciences and Technology
4. For providing consultancy services for corporates
5. For introducing national and international exchange programmes for faculty and students

Challenges

1. Low employability of graduates from the liberal arts
2. Persuading the stake holders for a first degree programme in Humanities and Social Sciences
3. Converting the existing minor programmes into a major programme
4. Reconstituting the existing first degree programme
5. Initiating a Master's programme in Humanities and Social Sciences

52. Future plans of the department.

Vision: An undergraduate and Master's programme in Humanities and Social Sciences

Tasks	Estimated Start Date	Target End Date
Prepare a curriculum proposal for a first degree programme in Humanities and Social Sciences	01 Oct 2015	01 Aug 2016
Prepare a curriculum proposal for a master's degree programme in Humanities and Social Sciences	01 Oct 2015	01 Aug 2016
Present the above mentioned two proposals for cross-campus discussion	01 Sep 2016	31 Oct 2016
First attempt for approval of these two abovementioned proposals by the university senate		Dec 2016

53. Any other information regarding your department which you would like to include.

Ever since the curriculum change of 2011, the Department of Humanities and Social Sciences has become central to the BITS system in an otherwise predominantly science and technology university. Every student (first-degree/higher degree) is obliged to opt for at least one course in the Humanities and Social Sciences. The Department thus adds value to professional education of graduates in engineering, technology and the sciences, but more importantly, connects the sciences with humanities across disciplinary frontiers.

Pilani Campus: Evaluative Report of the Department MANAGEMENT

1. **Name of the Department** - Department of Management
2. **Year of establishment of the Department** - 1964
3. **Is the Department part of a School/Faculty of the university?** - NO
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

No.	Name of Program
1	MBA - Flagship Program
2	Ph.D
3	WILP - MBA Consultancy Management
4	MS Consultancy Management
5	MBA Manufacturing Management, MBA Quality Management
6	M.Phil in Hospital and Health Systems Management
7	MPH - MS Education Management and MS - Office Management

5. **Interdisciplinary programmes and departments involved -**

1. **WILP Programme in collaboration with Department of Mechanical Engineering**

- | |
|----------------------------------|
| ▪ MTech Quality Management, |
| ▪ MTech Manufacturing Management |
| ▪ MS Quality Management |

2. **WILP Programme in collaboration with Department of Pharmacy :**

- | |
|---|
| ▪ MTech in Pharmaceutical Operations and Management |
| ▪ MS in Pharmaceutical Operations and Management |

6. **Courses in collaboration with other universities, industries, foreign institutions, etc. - Industry**

1. MTech Manufacturing Management SESA Sterlite, Jharsuguda
2. MTech Pharmaceutical Operations and Management, CIPLA Mumbai
3. MTech Pharmaceutical Operations and Management, Lupin Mumbai
4. M.Phil in Hospital and Health Systems Management, CMC Vellore and Bombay Hospital, Mumbai
5. MS Consultancy Management, CDC Delhi
6. MS Quality Management, IIQM Jaipur

7. **Details of programmes discontinued, if any, with reasons – None**

8. **Examination System:** Semester and Choice Based Credit System

9. **Participation of the department in the courses offered by other departments**

- | |
|---|
| 1. ECON F211 Principles Of Economics |
| 2. ECON F354 Derivatives And Risk Management |
| 3. ECON F355 /BITS F493 Business Analysis And Valuation |
| 4. ECON F413 / BITS F449 Financial Engineering |

5. ECON F414 Creating And Leading Entrepreneurial Organizations
6. ECON F415 /BITS F468 New Venture Creation
7. ECON F434 International Business
8. ECON F435 Marketing Research
9. ECON F417 Risk Management And Insurance
10. MATH F212 Optimization
11. GS F232 Introductory Psychology
12. GS F334 Global Business Technology & Knowledge Sharing
13. FIN F242 Introduction To Financial Mathematics
14. BITS F488 Service Management Systems
15. BITS F490 Project Management
16. BITS F319 Negotiation Skills And Techniques
17. BITS F320 Managerial Skills
18. BITS F321 Legal And Economic Environment Of Business

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	01	01
Associate Professors		0 +1 (off campus)	0 +1 (off campus)
Asst. Professors		12	12
Others		1+3(off campus)=04	1+3(off campus)=04

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./ M.Phil. students guided for the last 4 years
Anil Kr. Bhat	Fellow IIM B	Professor	Marketing Research	25	PhD 2 (completed)+ 7(Ongoing)
Dr Satyendra Kumar Sharma	PhD	Assistant Professor	Operations Management	11	PhD 01 (Ongoing)
Dr. Anubha Dadhich	PhD	Assistant Professor	Human Resource Management	5 years - months	2-

			Ethics, Leadership, Culture		
Dr. Arun Kumar	Ph.D.	Assistant Professor	Marketing	3years 7 months	-
Imlak N. Shaikh	Ph.D	Assistant Professor	Accounting and Finance	8	-
Jayashree Mahesh	M.Com, PGDBA, Ph.D Thesis Submitted	Assistant Professor	Human Resource Management	10	-
Jyoti	Ph.D	Assistant Professor	R&D Management and Entrepreneurship	10 years 5 months	PhD 02 (Ongoing)
Leela Rani	PhD	Assistant Professor	Retail	13	PhD 02(Ongoing)
Praveen Goyal	PhD	Assistant Professor	Marketing & Strategic Management	3years 5months	-
R. Raghunathan	PhD.	Assistant Professor	Entrepreneurship	18	-
Rajesh Matai	PhD	Assistant Professor	Industrial Engineering	10	-
Remica aggarwal	PhD	Assistant Professor	Operational research	8 years 5 months	-
Sarvesh Satija	Ph.D.	Assistant Professor	Industrial & Organizational Psychology (at PG Level)	11	PhD 02 (in progress)
Udayan Chanda	Ph.D.	Assistant Professor	Modeling and Optimization	06	-

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors :

Name	Qualification	Designation	Specialization
Krishnamurthy Bindumadhavan	M.B.A.	Associate Prof. (OC)	Management, Finance
P Jayalakshmi	M.Phil.	Visiting Faculty (OC)	MIS, Finance
Anjani Srikanth Koka	M.Sc.(Hons.)	Visiting Faculty (OC)	Human Resource Management, Organization Behavior, Business Communication, Soft Skills
Manda Saisekhar Das	M.B.A.	Visiting Faculty	

13. Percentage of classes taken by temporary faculty – programme-wise information -NIL

14. Programme-wise Student Teacher Ratio

129 Students (59+70) Faculty 14 = 9.21: 1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual - Actual 02

16. Research thrust areas as recognized by major funding agencies :

Indian Management Practices, Management Practices in MNC, Cross Cultural Management, Performance Appraisal, Strategic Marketing, Retail, Brand Management, Clustering Methodology, Strategy, Sustainable Development, Evolving Capitalism& Regulations, Project Management, Production Management, Facility

**21. Special research laboratories sponsored by / created by industry or corporate bodies -
NIL**

22. Publications:

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	118
2	Monographs	
3	Chapters in Books	05
4	Edited Books	-
5	Books with ISBN with details of publishers	01
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	70
7	Citation Index – range / average	0-47/25
8	SNIP	7.292
9	SJR	5.157
10	Impact Factor – range / average	0-2.1/1.30
11	h-index	21
12	National/International Conference Paper Presentations	85

Details of the publications as per the number give above (Give details in the last five years

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Kapur, P.K., Garg, R.B., Chanda, U. and Tandon, A.	Development of Software Reliability Growth Model Incorporating Enhancement of Features and Related Release Policy	International Journal of System Assurance and Engineering Management, Springer Vol.1 , No. 1, pp 33-39	International	2010
2	Kapur, P.K., Singh, O., Chanda, U. and Basirzadeh , M.	Determining Adoption Pattern with pricing using Two Dimensional Innovation Diffusion Model	Journal of High Technology Management Research, Elsevier Vol.21 , No. 2, pp 136-146	International	2010
3	Kapur, P.K., Chanda, Udayan and Kumar,	Dynamic Allocation of Testing Effort when Testing and Debugging are done Concurrently	Communications in Dependability and Quality Management, The Research Center of Dependability and Quality Management	International	2010

	Vijay,		Vol.13 , No. 3, pp 14-28		
4	Jyoti; Banwet, D. K. and Deshmukh, S. G.	Modelling the success factors for National R&D organizations: a Case of India	Journal of Modelling in Management, Vol. 5, No.2, pp. 158-175	International	2010
5	Jyoti; Banwet, D. K. and Deshmukh, S. G.	Ranking National R&D Organizations: Data Envelopment Analysis approach	International Journal of Society Systems Science, Vol.2, No. 2, pp. 176-193	International	2010
6	Jyoti; Banwet, D. K. and Deshmukh, S. G.	Measuring the Effectiveness of Success Factors: A Case of Government Funded R&D Organizations in India	International Journal of Business Excellence, Vol.3, No. 3, pp. 279-302.	International	2010
7	Sharma S.K., Bhat A. and Reddy, L.	Innovation and creativity in strategic planning	IIME Journal , Vol. 5 No.2 , PP. 49- 57	National	2010
8	Matai Rajesh, Singh Sury a Prakash, Mittal Murari Lal	Facility Layout Problem: State-of-the-art Review	Vilakshan, XIMB Journal of Management, Vol. VII, Issue No. 2, pp. 81-106	National	2010
9	Aggarwal R. (with Jha P.C. & Gupta A.)	Optimal media planning for multi –product in segmented market	Applied mathematics & computation , Elsevier Vol.217 , No. 16, pp 6802-6818	International	2011
10	Aggarwal R. (with Jha P.C. & Gupta A.)	Optimal allocation of promotional resource for multi –product in segmented market for dynamic potential adopter & repeat purchasing diffusion models	International Journal of Advanced Operations Management Vol.3 , No. 3/4, pp 257-270	International	2011
11	Chanda, U. and Kumar, A.	Economic Order Quantity Model with Demand Influenced by Dynamic Innovation Effect	International Journal of Operational Research Vol.11 , No. 2, pp 193-213	International	2011
12	Chanda, U.,	Optimal Control Policies for a Price-Quality Decision Model for Two Competing	International Journal of Innovation and Technology	International	2011

		Technology Generations	Management, world scientific Vol.8 , No. 4, pp 635-660		
13	Arun Kumar Agariya & Deepali Singh	What Really Defines Relationship Marketing? A Review of Definitions, General and Sector-specific Defining Constructs	Journal of Relationship Marketing Vol.10 , No. 4, pp 203- 237	International	2011
14	Arun Kumar Agariya , A.K., Johari A., Sharma H., Chandraul U. and Singh D.	The Role of Packaging in Brand Communication	International Journal of Scientific & Engineering Research Vol.3 , No.2, pp 1-13	International	2011
15	Arun Kumar Agariya & Deepali Singh	CRM in Banking: One Size Doesn't Fit All	AIMA Journal of Management & Research Vol.5 , No. 2, pp 1-25	National	2011
16	Bhal. K.T & Dadhich.A	Impact of Ethical Leadership and Leader-Member- Exchange on Whistle Blowing: The Moderating Impact of the Moral Intensity of the Issue.	Journal of Business Ethics, Vol. 103 , No.3, pp.485-496.	International	2011
17	Sharma, S.K. and Bhat, A.	Supply chain risk management: A Literature review	International Journal of Management, Vol.5, No.2, pp. 107-129	International	2011
18	Sharma, S.K. and Swain, A.	Risk management in construction projects	Asia-Pacific Business Review, Vol.7, No.2, pp. 107-120	National	2011
19	Sharma, S.K. and Bhat, A	Supply chain risk: A review and development of a topology	Journal of IMS Group Vol.8, No.2 , pp.41-56	National	2011
20	Matai Rajesh, Singh Surya Prakash, Mittal Murari Lal	A Non-greedy Local Search Heuristic for Facility Layout Problem	Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, Vol. 62, pp. 176-181.	International	2011

21	D. Kumar, Z. Rahman. I. Kumar & Goyal, P.	Sustainable Consumption in India: Challenges and Opportunities,	International Journal of Management and Business Studies Vol1,No. 3, pp.28-31	International	2011
22	Sharma, S.K. and Bhat, A.	An Empirical investigation of the Contribution of Supply chain design characteristics on supply chain risks in Indian Automobile Industry	International Journal of Business Continuity and risk Management, Vol.3, No.2, pp. 117-135.	International	2012
23	Sharma, S.K. and Bhat, A.	Identification and Assessment of Supply Chain Risk: Development of AHP Model for Supply Chain Risk Prioritization	International Journal Agile Systems and Management, Vol.5, No.4, pp. 350-369	International	2012
24	Bhat, Anil	Price-Quality Trade-off: An Integrative Review of Theory and its Implication for Marketing Practice	AIMS International Journal of Management Vol.6, No.2, pp. 153-166	International	2012
25	Bhat, Anil	Blog Popularity and Activity on Social Media: An Empirical Research	Indian Journal of Marketing, Vol.42, and No.5 pp. 10-18	National	2012
26	Sanjana.R. Bhat and Bhat, Anil	The Relationship of Attitude Constructs in Behaviour Adoption towards Alleviation of Nutritional Anaemia	International Journal of Behavioural and Healthcare Research, Vol.3,No.3/4,pp167-177	International	2012
27	Sharma, S.K. and Bhat, A.	An Empirical investigation of the Contribution of Supply chain design characteristics on supply chain risks in Indian Automobile Industry	International Journal of Business Continuity and risk Management, Vol.3, No.2, pp. 117-135.	International	2012
28	Aggarwal R. (with Aggarwal S. ali S.S.)	Optimal Media Selection for a product in Segmented Market under Fuzzy environment	Advances in Intelligent and Soft Computing, AISC Springer , Vol.130 , pp 983-995	International	2012
29	Aggarwal R. (with Jha P.C. & Gupta A.)	Optimal advertising Media allocation under fuzzy environment for a Multi Products Segmented Market	Turkish Journal of fuzzy systems (TJFS), an official journal of Turkish Fuzzy System Association Vol.3 , No. 1, pp 45-64	International	2012
30	Chanda, U. and Kumar, A.,	Economic Order Quantity Model on Inflationary Conditions with Demand Influenced by Innovation Diffusion Criterion	International Journal of Procurement Management Vol.5 , No. 2, pp. 160-177	International	2012

31	Satija, S.	Mental Health Perspectives in Organizations: Issues and Challenges.	International Journal of Research in Commerce, IT & Management; Vol.2, No. 2, pp.66-76	International	2012
32	Satija, S. & Khan, W.	Locus of Control in Relation to Job Satisfaction among University Teachers.	Journal of Indian Academy of Applied Psychology, Vol. 38, No. 3 (Special Issue), 205- 213.	National	2012
33	Satija, S. & Satija, P.	Time Management: An Insight with Indian Perspective	Purushartha, Vol. 5, No. 2., pp. 115-134	National	2012
34	Satija, S.	Vision and Leadership in Organizations: An Insight with Indian Perspective.	Purushartha, Vol. 4, No. 1, 62- 73.	National	2012
35	Arun Kumar Agariya & Deepali Singh	CRM Scale Development and Validation in Indian Banking Sector	Journal of Internet Banking & Commerce Vol.17 , No. 1, pp. 1-21	International	2012
36	Arun Kumar Agariya & Deepali Singh	CRM Scale Development and Validation in Indian Insurance Sector	Journal of Internet Banking & Commerce Vol.17 , No. 2, pp. 1-21	International	2012
37	Arun Kumar Agariya & Deepali Singh	CRM Index Development and Validation in Indian Telecom Sector	International Business Management Vol.6 , No. 4, pp. 487-501	International	2012
38	Arun Kumar Agariya & Deepali Singh	E-Learning Quality: Scale Development & Validation in Indian Context	Knowledge Management & E-learning: An International Journal Vol.4 , No. 4, pp. 500-517	International	2012
39	Sharma, S.K. and Bhat, A.	Potential barriers in supply chain risk management in Indian automobile industry	International Journal of Business Continuity and risk Management Vol.3, No.3, pp. 206-220	International	2012
40	Sharma, S.K. and Bhat, A.	An Empirical investigation of the Contribution of Supply chain design characteristics on supply chain risks in Indian Automobile Industry	International Journal of Business Continuity and risk Management, Vol.3, No.2, pp. 117-135.	International	2012

41	Sharma, S.K. and Bhat, A.	Identification and Assessment of Supply Chain Risk: Development of AHP Model for Supply Chain Risk Prioritization	International Journal of Agile Systems and Management, Vol.5, No.4, pp. 350-369	International	2012
42	Singh Surya Prakash, Matai Rajesh, Mittal Murari Lal	Solving Multi Objective Facility Layout Problem: Modified Simulated Annealing based approach	European Journal of Management (IABE), Vol. 12, No. 2, pp. 111-116	International	2012
43	Matai Rajesh, Singh Surya Prakash, Mittal Murari Lal	Solving Multi Objective Facility Layout Problem Using Non Greedy systematic neighbourhood search heuristic	International Journal of Services and Operations Management Vol. 12, No.1, pp.118-138.	International	(2012).
44	V. Kumar, Z. Rahman, A. A. Kazmi & Goyal, P.	Evolution of sustainability as marketing strategy: Beginning of new era,	Procedia Social and Behavioural Sciences Vol. 37, pp. 482-489	International	2012
45	Sharma, S.K. and Bhat, A.	An Empirical exploration of supply chain design factors and studying their influence on supply chain performance	International Journal of Business Performance and Supply chain Modeling, Vol.5, No.3, pp. 239-257.	International	2013
46	Matai Rajesh, Bhat Anil	Underlying Dimensions of Purchase Decision Process for Consumer Durables: A Confirmation of Customer-Value Hierarchy Model	Indian Journal of Marketing, Vol. 43, No. 5, pp. 16-23	National	2013
47	Shaikh, I. and Padhi, P.	On the Linkages among Ex-ante and Ex-post Volatility: Evidence from NSE Options Market (India)	Global Business Review Vol.14 , No. 3, pp. 487-505	International	2013
48	Shaikh, I. and Padhi, P.	Macroeconomic Announcements and the Implied Volatility Index: Evidence from India VIX	Margin: The Journal of Applied Economic Research Vol.7 , No. 4, pp. 417-442	International	2013
49	Shaikh, I. and Padhi, P.	The Information Content of Macroeconomic News	Procedia Economics and Finance, Elsevier B.V. Vol.5 , No. 13, pp. 686-695	International	2013

50	Shaikh, I. and Padhi, P.	Simultaneous Equation Approach on the Relationship between Implied, Realised and Historical Volatility	Asia-Pacific Journal of Management Research and Innovation Vol. 7 , No. 4, pp. 417-442	International	2013
51	Shaikh, I. and Padhi, P.	The information content of implied volatility index (India VIX)	Global Business Perspectives Vol.1 , No.4, pp. 359-378	International	2013
52	Shaikh, I. and Padhi, P.	RBI's Monetary Policy and Macroeconomic Announcements: Impact on S&P CNX Nifty VIX	Transition Studies Review Vol.19 , No.4, pp. 445-460	International	2013
53	Kapur, P.K., Hoang, P. Chanda, U., and Kumar, V.,	Optimal Allocation of Testing Effort during Testing and Debugging Phases: A Control Theoretic Approach	International Journal of Systems Science Vol.44 , No.9, pp. 1639-1650	International	2013
54	Kumar, A., Aggarwal, K.K. and Chanda, U.,	Economic order quantity model under fuzzy sense with demand follows Bass's innovation diffusion process	Int. J. Advanced Operations Management, Vol.5 , No.3, pp. 261-281	International	2013
55	Johri, P., Nasar, Md. and Chanda, U.	A Genetic Algorithm Approach for Optimal Allocation of Software Testing Effort	International Journal of Computer Applications, Foundation of Computer Science Vol.68 , No.5, pp. 21-25	International	2013
56	Nasar, Md, Johri, P. and Chanda, U.	A Differential Evolution Approach for Software Testing Effort Allocation	Journal of Industrial and Intelligent Information Vol.1 , No.2, pp. 111-115	International	2013
57	Satija, S.	Striving beyond a healthy development- An insight from Indian Wisdom.	Journal of Human Values, Vol. 19, No. 1, pp. 39-54	International	2013
58	Satija, S. & Khan, W.	Emotional Intelligence as Predictor of Occupational Stress among Working Professionals.	aWESHkar, Vol. 15, No. 1, pp. 79-97	National	2013
59	Satija, S. & Khan, W.	A study of working professionals' mental health in relation to personality at	Management Insight, Vol. 9, No. 1, pp. 44-56	National	2013

		workplace			
60	Arun Kumar Agariya & Deepali Singh	CRM Scale Development and Validation in Indian Public Hospitals	Journal of Health Management Vol. 15, No. 2, pp. 275-291	International	2013
61	Arun Kumar Agariya & Deepali Singh	CRM Index: An Effective Weapon for Relationship Enhancement	International Journal of Financial Services Management Vol. 6, No. 3, pp. 179-191	International	2013
62	Sharma, S.K. and Bhat, A.	An Empirical exploration of supply chain design factors and studying their influence on supply chain performance	International Journal of Business Performance and Supply chain Modeling, Vol.5, No.3, pp. 239-257.	International	2013
63	Sharma, S.K.	Risk Management in Construction Projects using combined Analytic Hierarchy Process and Risk Map Framework	The IUP Journal of Operations Management, Vol.12, No. 4, pp. 23-53.	National	2013
64	Matai Rajesh, Singh Surya Prakash, Mittal Murari Lal	A New heuristic for solving facility layout problem	International Journal of Advanced Operations Management, Vol. 5, No. 2, pp. 137-158	International	2013
65	Matai Rajesh, Singh Surya Prakash, Mittal Murari Lal	A non-greedy systematic neighbourhood search heuristic for solving facility layout problem	International Journal of Advanced Manufacturing Technology Vol. 68, pp. 1665-1675	International	2013
66	Matai Rajesh, Singh Surya Prakash, Mittal Murari Lal	Modified Simulated Annealing based approach for Multi Objective Facility Layout Problem	International Journal of Production Research Vol. 51, No.14, pp. 4273-4288.	International	2013
67	Matai Rajesh, Bhat Anil	Underlying Dimensions of Purchase Decision Process for Consumer Durables: A Confirmation of Customer-Value Hierarchy Model	Indian Journal of Marketing, Vol. 43, No. 5, pp. 16-23	National	2013

68	Goyal, P. & Z. Rahman, A. A. Kazmi	Corporate Sustainability Performance and Firm Performance Research Literature Review & Future Research Agenda,	Management Decision Vol. 51, No.2 pp.361-379	International	2013
69	Sharma, S.K. and Bhat, Anil	Modelling supply chain agility enablers using ISM	Journal of Modelling in Management, Vol.9, No. 2, pp. 200-214	International	2014
70	Sharma, S.K. and Bhat, Anil	Supply chain risk management strategies in Indian automobile Industry: A Cluster analysis approach	Benchmarking: An International Journal, Vol.21,No.6, pp. 1023-1040	International	2014
71	Sharma, S.K. and Bhat, Anil	Supply chain risks: Development of a model and empirical evidence	International Journal of Applied Management Science, Vol. 6,No.1,pp 45-64	International	2014
72	Sharma, S.K. and Bhat, Anil	Supply Chain Risk Assessment Tools and Techniques in the Automobile Industry:A Survey	The IUP Journal of Supply Chain Management , Vol. XI, No.1, pp 67-76	National	2014
73	<u>Nirankush Dutta</u> , Anil K. Bhat	Flipkart: Journey of an Indian e-commerce start-up	Emerald Emerging Markets Case Studies Vol. 4, No. 7, pp. 1-24	International	2014
74	Rohit Gupta and Anil Bhat	How successful is the Indian Banking System in upgrading to Basel III? – Some Exploratory Evidence	IJBM , Vol XIII, No. 4,pp7-19	International	2014
75	Aggarwal R. (with Udayan Chanda)	Optimal Inventory Policies for Successive Generations of a High Technology Product	Journal of high technology management research Vol. 25, No. 2, pp. 148-162	International	2014
76	Remica Aggarwal (with Singh S.)	DEAHP approach to manpower evaluation	Journal of Operations Research Society of China, Periodicals Agency of Shanghai University, Vol. 2, No. 3, pp. 317-332	International	2014
77	Aggarwal R. (with Bakshi A.)	Non Dominated Sorting Genetic Algorithm for Chance constrained supplier selection model with Volume Discounts	Notes in Artificial Intelligence, LNCS Vol. 8398, pp. 465-474	International	2014

78	Remica Aggarwal (with Jha P.C. Aggarwal S.)	Optimal Advertisement Planning for Multi Products Incorporating Segment Specific and Spectrum Effect of Different Medias	Advances in Intelligent Systems and Computing, Vol. 236, , pp. 1351-1368	International	2014
79	Remica Aggarwal (with Chanda U.)	Optimal Advertising Campaign Duration Of Successive Generation Product Using Diffusion Of Information	Journal of General Management Research Vol. 1, No. 1, pp. 108-116	International	2014
80	Aggarwal R. (with Singh S.P.)	An Integrated Stochastic Multi-objective Supplier Selection Problem with Incremental Volume Discounts	International Journal of Mechanical and Production Engineering Vol. 2, No. 2, pp. 7-12	International	2014
81	Remica Aggarwal	Selection of IT Personnel through Hybrid Multi-attributes AHP-FLP Approach	International Journal of Soft Computing and Engineering Vol. 2, No. 6, pp. 11-17	International	2014
82	Chanda, Udayan and Aggarwal, Remica	Optimal Inventory Policies for Successive Generations of a High Technology Product	Journal of High Technology Management Research, Vol. 25, No. 2, pp. 148-162	International	2014
83	Nasar, Md., Johri, Prashant and Chanda, Udayan	Resource Allocation Policies for Fault Detection and Removal Process	International Journal of Modern Education and Computer Science, MECS Publisher Vol. 11, pp. 52-57	International	2014
84	Nasar, Md., Johri, Prashant and Chanda, Udayan	Dynamic Effort Allocation Problem Using Genetic Algorithm Approach	International Journal of Modern Education and Computer Science, MECS Publisher Vol. 6, No. 6, pp. 46-52	International	2014
85	Nasar, Md., Johri, Prashant and Chanda, Udayan	Software Testing Resource Allocation and Release Time Problem: A Review	International Journal of Modern Education and Computer Science, MECS Publisher Vol. 6, No. 2, pp. 48-55	International	2014
86	Remica Aggarwal	Optimal Advertising Campaign Duration Of Successive	Journal of General Management Research	International	2014

	with Chanda U.	Generation Product Using Diffusion Of Information	Vol. 1, No. 1, pp. 108-116		
87	Shaikh, I. and Padhi, P.	On the relationship of implied, realized and historical volatility: evidence from NSE equity index options	Journal of Business Economics and Management Vol. 15, No. 5, pp. 915-934	International	2014
88	Shaikh, I. and Padhi, P.	The forecasting performance of implied volatility index: evidence from India VIX	Economic Change and Restructuring Vol. 47, No. 4, pp. 251-274	International	2014
89	Shaikh, I. and Padhi, P.	Investors' 'Fear' and 'Greed' Index: A Case India Volatility Index (IVIX)	Research Bulletin Vol. 39, No. 2, pp. 218-228	National	2014
90	Shaikh, I. and Padhi, P.	Stylized patterns of implied volatility in India: a case study of NSE Nifty options	Journal of Indian Business Research Vol. 6, No. 3, pp. 231-254	International	2014
91	Shaikh, I. and Padhi, P.	Inter-temporal relationship between India VIX and Nifty equity index	Decision Vol. 41, No. 4, pp. 439-448	International	2014
92	Shaikh, I. and Jakhar, S.K.	The Behavior of Investor's-fear-gauge-index on Scheduled Macroeconomic Communications	Procedia - Social and Behavioral Sciences Vol. 133, pp. 151-159	International	2014
94	Sharma, M. and Rani, L.	Environmentally Sustainable Consumption: A Review and Agenda for Future Research	Global Journal of Finance & Management Vol. 6(4), pp. 367-374	International	2014
95	Sharma, M. and Rani, L.	A Study of Children's Influence on Environmentally Sustainable Consumption Decisions in Household	Asian Journal of Management, Vol. 5, No.4, pp. 420-430.	International	2014
96	Sharma, S.K. and Bhat, A.	Supply chain Risks : Development of model and empirical evidence	Special issue on SCRM, International Journal of Applied Management Science Vol.6, No.1, pp.45-64	International	2014
97	Sharma, S.K. and Bhat, A.	Modelling supply chain agility enablers using ISM	Journal of Modelling in Management, Vol. 9, No.2, pp. 200-214	International	2014
98	Sharma, S.K. and Bhat, A.	Supply chain risk management strategies in Indian automobile Industry: A Cluster analysis approach	Benchmarking : An International Journal Vol.21, No.6, pp. 1023-1040	International	2014

99	Sharma, S.K. and Bhat, A.	A survey on Supply chain risk assessment tools/techniques	The IUP Journal of Supply Chain Management, Vol.11, No. 1, pp. 23-53.	National	2014
100	Sharma, S.K. and Bhat, A.	An empirical investigation of Supply chain risk management strategies in Indian automotive industry	The IUP Journal of Supply Chain Management, Vol. 11 No.4, pp. 23-53	National	2014
101	Matai Rajesh	A Mixed Integer Linear Goal Programming model for optimizing multiple constrained resources product-mix problem under theory of constraints	The IUP Journal of Operations Management, Vol. XIII, No. 1, pp. 7-19	National	2014
102	Amonker, N., Mahesh J.	'Impact of National Culture on Factors Affecting Product Design	International Journal of Business and Administration Research Review, Vol.3, No. 6, pp.109-116	International	2014
103	Goyal, P. & Z. Rahman,	Corporate sustainability performance assessment: an analytical hierarchy process approach,	International Journal of Intercultural Information Management Vol. 4 No. 1, pp. 1-14	International	2014
104	Anil Bhat	Evidence-Based Management: The Future?'	Indian Management - The Journal of The All India Management Association, June Issue, pp 52-59	National	2015
105	Anil Bhat and Saumya Agrawal	Reputation of Financial Services Companies: A Factor Analytic Investigation	The IUP Journal of Corporate Governance, Vol. XIV No.1, Jan.2015, pp 7-39	National	2015
106	Aggarwal R. (with singh S.P.)	Chance Constraint Based Multi-Objective Stochastic Model for Supplier Selection	International journal of advanced manufacturing & technology Vol. 79, pp. 1707-1719	International	2015
107	Shaikh, I. and Padhi, P.	The implied volatility index: Is 'investor fear gauge' or 'forward-looking'?	Borsa Istanbul Review Vol. 15 No. 1, pp. 44-52	International	2015

108	Shaikh, I. and Padhi, P.	On the relationship of ex-ante and ex-post volatility : A sub-period analysis of S & P CNX Nifty Index Options	Journal of Emerging Market Finance Vol. 15 No. 21, pp. 140-175	International	2015
109	Shaikh, I. and Padhi, P.	The behavior of option 's implied volatility index : A case of India VIX	Business: Theory and Practice / Verslas: Teorija ir Praktika Vol. 16 No. 1, pp. 149-158	International	2015
110	Shaikh, I. and Padhi, P.	A Study of Market Efficiency from Option prices : Evidence from the National Stock Exchange of India	Journal Transition Studies Review Vol. 22 No. 1, pp. 69-88	International	2015
111	Shaikh, I.	On the relationship between implied volatility index and realized return volatility	Research Bulletin Vol. 41, No.1, pp.225-235	National	2015
112	Chanda, Udayan and Das, Soumitra	Multi-Stage Diffusion Dynamics in Multiple Generation High Technology Products	Journal of High Technology Management Research Vol. 26, No. 1, pp. 88-104	International	2015
113	Arun Kumar Agariya & Sri Harsha Yayi	ERM Scale Development and Validation in Indian IT Sector	Journal of Internet Banking & Commerce Vol. 20 No. 1, pp. 1-16	International	2015
114	Sharma, S.K.	Developing a framework for analysing global supply chain security	The IUP Journal of Supply Chain Management Vol. 12 No. 3, pp. 26-45	National	2015
115	Matai Rajesh	Solving Multi Objective Facility Layout Problem using Modified Simulated Annealing	Applied Mathematics and Computation Vol. 261, pp. 302-311	International	2015
116	Mahesh, J., Bhat , A.	'Proposed Framework For Identifying "Indian" Management Practices	International Journal of Research in Management & Social Science, 3 (1- IV) : 21- 26	International	2015

117	S. Kamboj Z. Rahman and Goyal, P.	A resource-based view on marketing capability, operations capability and financial performance: An empirical examination of mediating role	Procedia Social and Behavioural Sciences , Vol. 189, pp. 406-415,	International	2015
118	Goyal, P. Z. Rahman, & A. A. Kazmi	Identification and Prioritization of Corporate Sustainability Practices using Analytical Hierarchy Process,	Journal of Modelling in Management Vol. 10, No., 1pp. 23-49,	International	2015

Chapters in Books:

1	Matai R., Singh' S.P. and Lal, M.M.	Traveling Salesman Problem: An Overview of Applications, Formulations and Solution Approaches	Traveling Salesman Problem, Theory and Applications, December, 2010, INTECH	International	2010
2	Kapur, P.K., Chanda, U. and Tandon, A.	Software Release Policy based on Change Point Considering Risk Cost	Advances in Information Theory and Operations Research: Interdisciplinary Trends, Om Parkash (Ed.),pp.111-122, VDM Verlag	International	2010
3	Agariya, A. and Singh, D.	CRM index-an effecting weapon for Indian Banks	Contemporary Challenges for the Indian Banking Sector, Bloomsbury Publication, pp., 188-201	International	2012
4	Shaikh, I. and Padhi, P.	India VIX is 'Investor fear gauge ' or ' forward-looking '?	Management Innovation and Intervention for Sustainable Development, Excel Publication	National	2014
5	Anil Bhat and Sarvesh Satija	Sustainability and Competitive Strategy: An Indian Context " in Business Sustainability – Challenges and Issues (Ed.),	Academic Reference Series, Bloomsbury Publications pp 112-137	International	2015

Conference Publications:

1	Kapur, P.K., Chanda, U. and Kumar, V.	Optimal Allocation of Testing Effort: A Control Theory Approach	Proceeding of the 4th National Conference; INDIACom-2010, Computing For Nation Development held during February 25 - 26, 2010 at Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi, pp. 425-430	National	2010
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2	Kapur, P.K., Chanda, U., Tandon, A. and Anand S.	Innovation Diffusion of Successive Generations of High Technology Product	Proceedings of 2nd International Conference on Reliability, Safety and Hazard, 505-510	International	2010
3	Aggrawal, R., Jha P.C. & Aggarwal S.	Optimal advertising campaign duration using diffusion of information	Proceedings of conference on Mathematical and Statistical modeling in innovative areas, Birla Institute of Technology , BIT , Mesra , Ranchi , 2011,pp 24-31.	International	2011
4	Mahesh, J., Bhat , A.	'''Indian'' Management Practices: A Chimera or Reality'	Proceedings of the International Conference on Management in the New World Order - Concepts and Practices from India, Indian Institute of Management, Ranchi, McGraw Hill, India, pp. 452-465.	International	2012
5	Bhat, A. Sharma, S.K. and Harsha, S.	Relationship between corporate social responsibility and financial performance of firm: An Indian context	Proceedings of International conference on Doing well by doing good, SGBED organized by IIM Bangalore (India) and Curtin University (Australia) July 9-12,2012	International	2012
6	Alimchandani M., Bhat, A. & Kumar, A.	Competitiveness of India's Power Sector: A Frameworks' Perspective	Tenth AIMS International Conference on Management , Jan 6-9, 2013 at IIM Bangalore	International	2013
7	Tiwari,P., Bhat, A. & Jyoti	Review of Social Entrepreneurship and Future Research Agenda	Tenth AIMS International Conference on Management , Jan 6-9, 2013 at IIM Bangalore	International	2013
8	Dutta N, & Bhat, A.	An Exploration of Antecedents & Outcomes of Trust in Social Media Marketing	Tenth AIMS International Conference on Management , Jan 6-9, 2013 at IIM Bangalore	International	2013
9	Sharma, S. Bhat, A. & Joshi, V.	Supply Chain Risk: Retailers Perspective	Tenth AIMS International Conference on Management , Jan 6-9, 2013 at IIM Bangalore	International	2013

10	Kumar, A. and Chanda, U.	Inventory Model for Permissible Delay in Payments of New Products under Dynamic Pricing and Advertising Expenditure	Proceedings of International Conference on Evidence Based Management, vol. 2 493-496.	International	2015
11	Kumar, A. and Chanda, U.	Innovation Diffusion Based Inventory Model under Dynamic Advertising and Pricing Policy	Proceedings of International Conference on Evidence Based Management, vol. 2 661-665	International	2015

Books with ISBN with details of publishers

Sr.No	Name of Faculty Member	Name of the Book	Name of the Publisher	ISBN NO.	Year of Publication
1	ARYA KUMAR	CREATING AND LEADING AN ENTREPRENERIAL ORGANISATION	Pearson	8131765784	2012.

23. Details of patents and income generated - NIL AT DEPARTMENTAL LEVEL

24. Areas of consultancy and income generated - NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad -

1. Dr. Remica Aggarwal For Genpact , Bangalore From June 2014-July 2014 - Under Industry Immersion Program, Bits Pilani
2. Dr. Anubha Dadhich - PMI, NTPC Noida

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify) - 07

1. Dr. Imlak Sheikh -

- Guest Editor for Special Issue on: "Evidence-Based Management Practices in Accounting and Finance" - International Journal of Management Practice
- Guest Editor for Special Issue on Evidence Based Modelling in Management - Journal of Modeling in Management

2. Dr. Udyan Chanda -

- Guest Editor of Special Issue on: Evidence-based Processes in Business and Systems in International Journal of Business and Systems Research (IJBSS), 2015.
- Guest Editor of Special issue On: Evidence Based Management for Services Sector in International Journal of Information Systems in the Service Sector (IJISS), 2015
- Guest Editor of Special issue in Communication in Dependability and Quality Management, An International Journal, Serbia, 2010.
- Editorial Board Member of Journal of Knowledge Management & Information Technology.

- Editorial board member of Journal of Advanced Research in Operational & Marketing Management
- 3. **Dr. Sarvesh Satija:**
 - National Committees: National HRD Network, Indian Academy of Applied Psychology, ISABS- New Delhi
- 4. **Dr. Arun Kumar:**
 - Editorial board member of Journal of Advanced Research in Operational & Marketing Management
- 5. **Dr. Praveen Goyal**
 - Guest Editor for Special Issue on: "Evidence-Based Management Practices in Accounting and Finance" - International Journal of Management Practice
 - Guest Editor of Special Issue on: Evidence-based Processes in Business and Systems in International Journal of Business and Systems Research (IJBSR), 2015.
 - Editorial board member of Journal of Advanced Research in Operational & Marketing Management
- 6. **Dr. Satyendra Kumar Sharma**
 - Guest Editor for Special Issue on Evidence Based Modelling in Management - Journal of Modeling in Management
 - Guest Editor of Special issue On: Evidence Based Management for Services Sector in International Journal of Information Systems in the Service Sector (IJISSS), 2015
- 7. **Dr. Anubha Dadhich**
 - Member Curriculum Validation Committee at DMIMS, Nagpur

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

1. Dr . Sarvesh Satija

- Received training on "Basic Lab on Human Processes" (BLHP- Training Course), Indian Society for Applied Behavioral Sciences ISABS, March 26 to April 1 2013 (New Delhi).
- Completed "Case Method Teaching Seminar" offered by Harvard Business Publishing & IIMA Case Centre, IIM Ahmedabad, October 17- 18, 2014

2. Dr . Leela Rani

- Completed "Case Method Teaching Seminar" offered by Harvard Business Publishing & IIMA Case Centre, IIM Ahmedabad, October 17- 18, 2014
- Received BITS Seed Grant of Rs. 320000 for a project titled ' Investigation &Development of an ICT driven MIS for Small Milk Producers' for a period from February 2013 - 2015

3. Dr. Satyendra Kumar Sharma:

- Attended IVEY IIMC Case Method workshop at IIM Calcutta, Nov. 25-28, 2014

4. Dr. Rajesh Matai:

- Attended IVEY IIMC Case Method workshop at IIM Calcutta, Nov. 25-28, 2014

5. Dr. Remica Aggarwal:

- Attended IVEY IIMC Case Method workshop at IIM Calcutta, Nov. 25-28, 2014

6. Prof. Anil Bhat-

- Attended Leadership Programme at IIMA, Innovating for Excellence: Programme for Leaders in Management Education from December 2 -7, 2013

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects - **100% - All Students have to do projects as a part of each and every course they register**
- percentage of students doing projects in collaboration with other universities /industry / institute - **Industry Projects - 100% - Summer Internships and Practice School Projects**

29. Awards / recognitions received at the national and international level by

Faculty :

1. Dr. Imlak N Shaikh

- Ph. D Theses Excellence Award' from Indian Institute of Technology Bombay (IIT-Bombay). Conferred on 53rd Convocation of IIT-Bombay on 8th August 2015. The Award was honoured for Excellence in Thesis work for the year 2013-15 for the outstanding research contributions in partial fulfillment of the requirement for the degree of Doctor of Philosophy from IIT-Bombay.

2. Dr. Satyendra Sharma

- Awarded with **AIMS International Outstanding Doctoral Management Student award**2012 at IIM Bangalore on 7th Jan, 2013.
- Highly Commended paper in the 2015 Emerald Literati Network Awards for Excellence - Sharma, S.K. and **Bhat, Anil.** (2014), "Modelling supply chain agility enablers using ISM", Journal of Modelling in Management, Vol.9, issue 2

3. Dr. Arun Kumar

- AIMS International Young Management Researcher Award by Association of Indian Management Scholars
- Accreditation of Management Teachers Certification (AIMA)

4. Dr. Jyoti

- Received Premium Awards for Entrepreneurship Week 2015 by National Entrepreneurship Network (NEN)-Wadhvani Foundation.
- Received Premium Awards for Entrepreneurship Week 2014 by National Entrepreneurship Network (NEN)-Wadhvani Foundation
- Received Certification of Appreciation from Aditya Birla Group, as member IPMS implementation team. 2014

5. Jayashree Mahesh

- Best Paper Award received for a paper titled "*Indian*' Management Practices: A Chimera or Reality ', presented in the "International Conference on Management in the New World Order" held at IIM Ranchi from August 13-14.

Doctoral / post doctoral fellows

1. Preeti - Tiwari Secured 3rd prize in Social B-plan competition held at IIT-Madras 2014.

Students

1. Kiriti Pagaria - Winner in BITS Pilani Master Plan Competition, 2015
2. Chetan Sharma - 7th rank in Credit Suisse Holt Competition, 2015
3. Swati Chopra - Awardee of Holt Partner Status and Holt Lens by Credit Suisse in Holt Valuation Challenge, 2014

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

Workshops:

S. No.	Date	Area/Title of the Workshop	Resource Person/Coordinator
1	7 th Sep 2014	Workshop on "HR Analytics: For Future Leaders"	Mr. Mohan Joshi
2.	22 nd & 23 rd Sep' 2014	Workshop on HRO- Module-1	Mr. Pankaj Bansal Ms. Soma Sarkar Rao
3.	6th November 2014	Basic Business Analytics	Remica Aggarwal & Udayan Chanda
4.	22nd - 23rd November 2014	Data Analytics and Using R for Statistical Analysis	Dr. Sujoy Bhattacharya, IIT Khargpur
5	28th Feb' 2015	Workshop on HRO- Module-2	Mr. Atul Tiwari Ms. Soma Sarkar Rao
6	16th and 17th Nov. 2013	Workshop on Retail: "Decoding the Future of Retail".	Mr. Amit Sharma and Mr. Devashish Dasgupta
7	2013	Workshop on Team Building & Leadership	Lt. Gen S. P. Kochhar (Retd.)
8	2013	Workshop on Management Education Lecture on Strategic management and Case study	Dr. P. K. Ghosh
9	2013	Workshop on Financial Modelling	Mr. Paramadeep Singh
10	2013	Workshop on Creativity, Innovation and Entrepreneurship	Dr. Rajiv Gupta
11	September 29, 30 & October 01, 2011	FDP Tools and Techniques in Statistics and Simulation	Prof. Anil Bhat
12	2010	Workshop on IPR	Prof. Arya Kumar
13	2010	Workshop on Issues in Patenting	Prof. Arya Kumar

Source of Funding: Registration Fees

Conference

International Conference on Evidence Based Management 2015 (ICEBM2015), held on the **20-21 March, 2015 at BITS Pilani, Pilani campus.**

The aim of this conference was to provide a platform to the researchers, scholars, academicians and practitioners from different part of the globe to discuss various methods of evidence based management. The conference focused on various techniques and methodologies along with their application to provide some concrete evidences for better managerial decision making. **Conference Chair:** Prof. A. K. Bhat

31. Code of ethics of research followed by the Department:

The department follows the code of ethics specified by the Institute.

32. a) Student profile programme-wise:

Name of the Programme	Applications Received		Selected		Pass percentage	
	Year	No.	Male	Female	Male	Female
1. MBA	2010-11	4428*	47	07	100%	100%
	2011-12	45571*	32	10	100%	100%
	2012-13	682**	38	9	100%	100%
	2013-14	761**	33	17	100%	100%
	2014-15	515**	60	17	100%	100%
2. PhD	2010-11	59***	0	0	PhD work in progress	
	2011-12	76***	2	2		
	2012-13	70***	0	4		
	2013-14	97***	0	1		
	2014-15	48***	2	2		

* For the year 2010-11 and 2011-12 the admission for MBA was through BITSAT (common entrance test for all higher degree program). **From 2012-13 onwards the admissions is through CAT specifically for MBA program. *** These are applications received for PhD programs of all disciplines in Pilani Campus

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
MBA	0%	05% (on an average)	95% (on an average)	0%
PhD	0.76	33.33	65.91	0%

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Research Scholars who have Cleared NET - 06

1.	Preeti Tiwari
2.	Arunima Rana
3.	Nirankush Dutta
4.	Dilawar Bhat
5.	Meenakshi Sharma
6.	Shubha Dubey

35. Student progression

Student progression	Percentage against enrolled
UG to PG	- (We do not offer a UG degree)
PG to M.Phil.	- (We do not offer MPhil)
PG to Ph.D.	1.19% (3/253)
Ph.D. to Post-Doctoral	-
Employed	91.87
☑ Campus selection	5.75
☑ Other than campus recruitment	
Entrepreneurs	1.19%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	28.57% (4/14)
from other universities within the State	7.15 % (1/14)
from universities from other States from universities outside the country	64.28% (9/14)

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period - 08

38. Present details of departmental infrastructural facilities with regard to

a. Library

		2012-13	2013-14	2014-15	2015-16 (Till 30 th June)
01	No. of New Titles added (Business Management)	114	69	96	36
03	No. of New Volumes added (Business Management)	135	78	110	40

07	Total no. of Magazines / Periodicals subscribed to	38	37	32	32
08	No. of National journals subscribed to	30	29	24	24
09	No. of International journals subscribed to	8	8	8	8
13	No. of Business Magazines / Periodicals	9	9	9	9
14	No. of Business Journals subscribed in hardcopy	9	9	9	9
15	No. of Business Journals subscribed in softcopy	1770	1772	1772	1772

Number of magazines subscribed by the institute for the specific field:	
Business	7 (Print) + 242 (E-Journals)
Entrepreneurship	1 (Print) + 37 (E-Journals)
Finance	2 (Print) + 183 (E-Journals)
Marketing/Advertising/Media	4 (Print) + 46 (E-Journals)
Research	37 (Print) + 366 (E-Journals)
Taxation	1 (Print) + 96 (E-Journals)
General Awareness	4 (Print)
Top 3 journals of other B-Schools available in your library	1. Iimb Management Review 2. Harvard Business Review 3. Vikalpa 4. Current Contents In Management: Marketing

Top 2 journals/magazines subscribed by the library in the following fields.

S No.	Field	Magazines subscribed:
1	Business	1. Academy Of Management Review 2. Academy Of Management Journal
2	Entrepreneurship	1. EDI Journal 2. International Journal Of Entrepreneurship & Small Business
3	Finance	1. Journal Of Finance 2. Economic Review
4	Marketing/Advertising /Media	1. Journal Of Marketing 2. Journal Of Marketing Research
5	Research	1. Vikalpa 2. IIM-B Review
6	Taxation	1. International Tax Review 2. CFA
7	General Awareness	1. Harvard Business Review 2. MIT Sloan Management Review

- b. Internet facilities for staff and students - Provided centrally by the institute to all faculty and IPC facilities available for students
- c. Students' laboratories - Computer Lab with 34 terminals sanctioned
- d. Research laboratories - Research scholar Lab with seating capacity of 25 students and 6 computer terminals

39. List of doctoral, post-doctoral students and Research Associates

- a. from the host institution/university - 13 on campus full time students + off campus students (Data of off campus students is centrally available with Academic Research Division and not at departmental level)

Details of On-campus students

1.	Preeti Tiwari- 2011PHXF037P
2.	Nirankush Dutta- 2011PHXF422P
3.	Arunima Rana- 2011PHXF421P
4.	Onkar Bagaria – 2011PHXF414P
5.	Amrita Patwa – 2012PHXF011P
6.	Priyanka Bhattacharya- 2012PHXF012P
7.	Nikita Sharda- 2012PHXF013P
8.	Meenakshi Sharma-2012PHXF014P
9.	Shubha Dubey- 2013PHXF012P
10.	Sakshi Chabra - 2014PHXF011P
11.	Dilawar Bhat - 2014PHXP415P
12.	Omkar Sahu - 2014PHXP414P
13.	Bhanu Mishra - 2014PHXP416P

b. from other institutions/universities - **NIL**

40. Number of post graduate students getting financial assistance from the university.

S. No.	Scholarship sponsoring body	Type/Nature of scholarship	Number of students getting this scholarship
	By the Institute	TEACHING ASSISTANTSHIP RESEARCH SCHOLARSHIPS	<ul style="list-style-type: none"> ▪ 25% OF THE MBA STUDENTS (approx 200 nos. from 2010 -2015) ▪ 13 PH.D. STUDENTS

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Development of our flagship M.B.A Programme: In terms of historical context of management education at the Institute, the Institute has offered management degrees from its inception. At an early stage the Institute was offering an MBA degree. The input for this degree was B.A., B.Sc., B.Com., etc. The MBA degree offered at that time had a lot of influence of the commerce courses. When the Institute restructured its educational programme and created an integrated educational structure during 1970 to 1973 it took a decision of taking the then existing postgraduate MBA degree as a part of its first degree programme. Since the new programme was different and several courses were common with science and engineering programmes, the Senate at that time decided to give a new nomenclature of 'Master of Management Studies' to the programme. At that time it was a unique nomenclature given by the Institute. Subsequently many other universities also used the nomenclature MMS for their management degrees.

Between 1972 and 1978 admissions to the Institute were made for unassigned programmes and the students who were admitted from the school to the Institute were branched into different streams at different levels. Students went into Economics and Management stream at the end of first year and from this stream they branched into MMS programme at the end of second year. From 1978 the Institute introduced assigned

admissions so the students were directly admitted to various degree programmes based on 10+2 input (10+2 system also came into existence from 1978). The Institute also introduced several flexibilities by which the students could get among many other things an option of dual degree. The integrated first degree programmes were classified into Group A, Group B and Group C where Group A programmes were treated as professional degree programmes as per the AICTE practice. The MMS degree program became a part of group

A. Most of the input to the MMS programme came immediately after 10+2 schooling. The content of the MMS programmes was a judicious mixture of mathematics, science, engineering, computer and analytical courses and all the basic management courses. There were sufficient slots available for students to choose from and the programme also had a practice school component. The flexibilities available at the Institute allowed students to choose from the electives judiciously and they had many options and several students used the options to go for IT- based courses instead of management. Most of the campus interviewing companies which came to the campus while selecting management students selected them for jobs which were not necessarily management jobs.

42. Feedback from Recruiters, Alumni and Faculty

Even though placement for all students was more or less assured there seemed to be a sense of dissatisfaction among the faculty and students because the organizations were not choosing our students as they did in the case like IIM's. An analysis of our alumni indicated that a large number of alumni did end up in having a coveted management position but many of them had also done higher degrees in other universities after they graduated from here. The feedback from the faculty indicated that the current MMS programme with a 10+2 input is not able to sustain motivated students. It was now felt that we should seriously examine for a management degree which may be like a graduate degree of the United States universities with a more mature input than 10+2 candidates. Based on this the admission to MMS programme from the year 2006-07 were suspended.

The Institute is very well known for its engineering and technology programmes. The management programme had to be designed in such a way that this programme becomes unique and has a symbiotic relationship with different engineering and technology programmes. It was felt that there will be a good transition if we introduce a Graduate (higher degree as in US) level programme with a stream of electives in Engineering and Technology Management and ITES management to begin with.

The Institute has also been conducting a number of off-campus Management degree programmes for employed professionals. These programmes are in the areas of

- Consultancy Management
- Quality Management
- Industrial Production and Management
- Pharmaceutical Operations and Management
- Hospital and Health System Management

- Manufacturing Management

Over years, sufficient experience has been gathered in the conduct of the various M.S Programmes in the above areas and this experience was as well helpful in planning suitable on-campus programmes in Management. The Institute is very well known for its engineering and technology programmes. The new management programme has been designed in such a way that this programme becomes unique and has a symbiotic relationship with different engineering and technology programmes.

Does the department obtain feedback from

- a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Faculty is empowered to suggest changes in the syllabi, handout and referred text books and other educational material of the course continuously. Faculty can propose new courses which are more relevant and contemporary and the department processes the proposals and pilots them for approval in the senate.

- b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

The student feedback on the above factors is collected in a structured manner and processed at the instruction division and then the feedback both qualitative and quantitative given to the faculty. It also acts as a meeting point between the faculty and head of the department during the goal setting and appraisal process. Besides these the mandate for student faculty councils includes quality of class-room instruction, tutorial exercises , home assignments, evaluation of answer scripts and possible electives to be offered in the next semester. Besides these formal feedback mechanisms , there exists an informal feedback during faculty meetings and student meetings.

- c. alumni and employers on the programmes offered and how does the department utilize the feedback?

Alumni feedback is mainly through informal chats and e-mails with their faculty but the recruiter feedback is a structured exercise that happens through detailed reports from the placement unit. The department plays host to many visiting executives that have come to the institute for placement and our interaction with them is a source of many insights that are then feedback for incorporation in the curriculum and pedagogy for the courses or in some cases has resulted in additional focus on some areas.

43. List the distinguished alumni of the department (maximum 10)

Sr. No.	Name of the Alumni	Batch	Current Position/ Achievements	Contact Details- Phone, Address, Linked in Profile
1	Gerry George (Gerald George)	1989-1992	Dean at the <u>Lee Kong Chian School of Business at Singapore Management University.</u> Editor <u>Academy of Management Journal</u>	www.linkedin.com/pub/gerry-george/5/350/a71
2.	Sharat Dhall	1987-1991	President at Yatra Online Pvt. Ltd	www.linkedin.com/in/sdhall
3.	Anu Hasan	1988-1993	Actor and TV Presenter at London	www.linkedin.com/pub/anu-hasan/2a/932/385
4.	Rakshit Kumar	2010 – 2012	Assistant Vice President J.P. Morgan	www.linkedin.com/pub/rakshit-kumar/13/636/435
5.	Rathna Prasanth K	2012-2014	Campaign Manager at Google	www.linkedin.com/in/ratnaprasanth
6.	Nirupam Anand	2008-2010	Strategy and M&A Consultant with expertise in Energy and materials	www.linkedin.com/in/nirpam
7.	Sumedh Agarwal	2006-2008	Sr. Management Consultant - Tetra Tech	www.linkedin.com/in/agarwalsumedh
8.	Kulashekharan B S	2006-2008	Business System Analysis Advisor specializing in Project Management, B2B, Data Integration, BI & DW	www.linkedin.com/in/bskula
9	Ezhil A.S	2011-2013	Chief Engineer at Bluemetal Infrastructures	www.linkedin.com/pub/ezhil-as/23/178/329
10	Gokul Karthikeyan	2011-2013	Partner, Vistara Garments	www.linkedin.com/pub/gokul-karthikeyan/3b/97/551
11	Arvind Balasubramanian	2010 – 2012	Deputy Manager - M&A and Corporate Strategy IGATE	www.linkedin.com/in/arvindbalasubramanian

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Guest Speakers and Invited Lectures 2010: The management programme was enriched throughout the year by organizing more than thirty guest lectures of accomplished alumni, academicians and corporate executives for students as well their interaction sessions with the Department faculty. Mr. Sharat Jain (Founder/CEO of Online Recharge Services Private Limited); Mr. Sankalpa Bhattacharya (Associate Director, KPMG); Mr. Aswin Yadav; Senior Manager (Corporate Strategy), Oracle Financial Services; Mr. Manish Tahilyani, Industry Manage, Google India; Mr. Inder Pal Singh Kalra (General Manager with IDBI). Prof. Ravi Anupindi (Prof. at the Ross School of Business, University of Michigan, Ann Arbor); Dr. Rajiv Gupta (Adjunct Faculty, University of Michigan – Dearborn); Prof. Sunil Maheshwari (IIM Ahmadabad); Prof. RRK Sharma, Industrial & Management Engineering

Department, IIT Kanpur etc. were some of the notable speakers. Dr. Bhaskar Bose, Adjunct Professor and CEO, Four Sigma Management Consultant Pvt. Ltd., Kolkata was invited to deliver lectures on the course BITS G515 Management Principles and Practice during Second Semester 2009-10. Swami Anubhavanandaji delivered lectures for various humanities and management related courses and conducted mediation classes

Guest Speakers and Invited Lectures 2011: The management programme was enriched throughout the year by organizing more than thirty guest lecturers of accomplished alumni, academicians and corporate executives for students as well their interaction sessions with the Department faculty. Mr. Raj Singh, MD, Malika Communication; Mr. Soumitra Sen, President, DDB Health & Lifestyle; Prof. Sanjay Ramachander, Associate Professor, Department of Finance & Real Estate, Colorado State University; Prof. Sudhir Sachdev, Assistant Professor, Farmingdale State College, New York were some of the notable speakers

List of Guest Lectures in Management Department the Academic Year 2013-14

Person	Institute/ Organisation	Mode of Lecture	Topic Spoken
Mr. Partho Dasgupta	Managing Director at NEC India and Executive Board Member at NEC Technologies India	On Campus	Lecture on B2B Sales Strategies
Dr. Vasudevan Sundararajan	Vice President - Business Analytics, HSBC	On Campus	Lecture on Brand Equity and Channel Forecasting Method, and Advertising Tracking and Market Mix Modeling
Mr. Somnath Mitra	BI Delivery Lead at Xchanging Technology	On Campus	Lecture on Digital Enterprise & ERP
Dr. C. Murty	Managing Director, TECSAS Innovations Pvt Ltd	On Campus	Lecture on Knowledge Management & Facilitation Skills
Dr. Thillai Rajan	Associate Professor, Dept. of Management Studies, IIT Madras	On Campus	Lecture on Capital Budgeting
Lt. Gen S. P. Kochhar (Retd.)	CEO, TSSC India	On Campus	Workshop on Team Building & Leadership
Dr. P. K. Ghosh	Ph.D, Professor Emeritus, IISW&BM-Kolkata, Visiting Faculty at various Business Schools	On Campus	Workshop on Management Education Lecture on Strategic management and Case study
Mr. Manoj Soni	President - Supply Chain, Jubilant Life Sciences Ltd.	On Campus	Talk on Supply Chain Sustainability
Mrs. Anuradha Das Mathur	Founder Director, 9.9 Media Pvt. Ltd.	On Campus	Talk on Entrepreneurship
Mr. Paramadeep Singh	Co-founder, Edupristine	On Campus	Workshop on Financial Modelling
Mr. Devashish Dasgupta	Director, Corporate Affairs, Yum Restaurants (India) Pvt. Ltd.	On Campus	Workshop on Decoding the Future of Retail
Mr. Amit Sharma	Associate Vice President, Mall Business, Future Market Networks	On Campus	Workshop on Decoding the Future of Retail
Mr. Nirupam Anand	BITS Alumnus and currently working with McKinsey and Co.	Online	Consulting Careers

Mr. Kishore Chakraborti	Vice President, Consumer Insight & Human Futures Development, McCann Erickson India	On Campus	Crafting an Advertising Campaign
Dr. Rajiv Gupta	Visiting Faculty at BITS Pilani, SPJIMR, and FORE School of Management	On Campus	Workshop on Creativity, Innovation and Entrepreneurship
Mr. M. G. Parmeshwaram	Draftfcb-Ulka Advertising, Mumbai	Online	Introduction to Advertising
Dr. Aswath Damodaran	Kerschner Family Chair in Finance Education and Professor of Finance at New York University Stern School of Business	Online	Dealing with Noise - Living with uncertainty in investing and valuation
Dr. Venu Gopal Jarugumalli	Customer Warranty & Quality Research & Analytics Manager at HP	Online	Data Analytics- a BRIEF overview
Dr. Arun Sundararaman	Head, Data Analytics Practice, Accenture	On Campus	Data Analytics- How to make a career in Data Analytics Field
Prof. Nandhini Vaidyanathan	Founder and Mentor, CARMA, London School of Economics	Online	Making an Effective Business Plan
Mr. Agendra Kumar	President, NIIT Esri Technologies	On Campus	How to Manage highly competitive team

Guest Speakers/Faculty visited Department of Management, BITS Pilani - Pilani Campus in last one year (2014-2015)

S. No.	Name	Topic of presentation/Area of Expertise	Dates of Visit
1.	Prof. Hemant Merchant Kate Tiedemann College of Business, University of South Florida St. Petersburg	Some thoughts on art of presenting scientific evidence	20/03/2015
2.	Prof. B. N. Jain Vice Chancellor, BITS Pilani	Data driven approach for resource allocation in multi campus university	20/03/2015
3.	Prof. Snehendru B. Kar Department of Community Health Sciences, University of California at Los Angeles (UCLA)	Evidence based management: Key issues and challenges in health sector	20/03/2015
4.	Prof. M. J. Xavier Executive Director, VIT Business School, Vellore	Evidence based management: Research across business, social sector, education sector and public policy	20/03/2015
5.	Dr. Balwant Singh Ex-Principal Advisor, Department of Statistics and Information Management (DSIM) of Reserve Bank of India (RBI)	Monetary policy : evidence based practice	20/03/2015
6.	Dr. Vasudevan Sundararajan Vice President - Business Analytics, HSBC	Data driven insights for competitive advantage	21/03/2015

7.	Dr. Amit Bardhan Professor, Faculty of Management Studies, University of Delhi, Delhi	Tools and techniques in Evidence based management	21/03/2015
8.	Dr. Kanhaiya Singh Professor FORE School of Management, New Delhi	Evidence based management practices in banking sector	21/03/2015
9.	Mr. Somnath Mitra Worked with IBM, India Mr. Mitra has more than 16 years of work ex in IT industry, with experience in Oil & Gas (upstream, and downstream) domain, and Telecom domain.	Management information systems	12th - 13th April 2015
10.	Mr. Atul Tiwari Head – HR & Training People Strong Ms. Soma Sarkar Rao Member- HR Team People Strong	Second Module of Human Resource Outsourcing Workshop Topic: HRO Process Management & Governance	28th Feb. 2015
11.	Mr. Mukesh D. Jain VP & Head, Advertising & Analytics Jio Digital Media Services	Big Data, Business Analytics	23rd-24th Feb. 2015
12.	Dr. Sujoy Bhattacharya Assistant Professor VGSOM, IIT Kharagpur	Business Analytics, Marketing and Marketing Research	21st - 24th Nov. 2014
13.	Mr. Partho Dasgupta Country Head --Solutions for Dimension Data. Experience Summary: 24 years of sales, presales, marketing, strategy, industry and P&L leadership in Dimension Data, Microland,Wipro InfoTech and Wipro Technologies . Committed to creating enduring value through innovative thinking, disciplined execution and integrity.	Sales and Marketing	9th - 15th Nov. 2014 & 20th - 24th April 2014
14.	Mr. Pankaj Aggarwal Founder and CEO, People Strong Ms. Soma Rao Member- HR Team People Strong	Human Resource Management	22nd -23rd Sep. 2014
15.	Mr. Mohan Joshi: 30 Years of experience in marketing across Specialized and Pharmaceutical industry Associated with renowned multi-national companies such as SCHOTT Glass India Limited (German MNC), Torrent Pharmaceuticals, Associated Capsules Group, Chanrai Group (a leading NRI	Strategic Management, Marketing and Leadership development & performance coaching	6th - 8th Sep. 2014

	group operating in U.K., Africa and Asia), and Borosil Glass (formerly Corning Glass).		
16.	Dr. Vasudevan Sundararajan VP Business Consulting Analytics division HSBC	Business Analytics	19th - 20th April 2014
17.	Mr. Somnath Mitra Worked with IBM, India Mr. Mitra has more than 16 years of work ex in IT industry, with experience in Oil & Gas (upstream, and downstream) domain, and Telecom domain.	Management information systems	12th - 13th April 2014
18.	Dr. Murthy Chebiyyam Managing Director TECSAS Innovations Pvt. Ltd.	Organization Behavior	21st - 22nd Mar. 2014
19.	Dr. Thillai Rajan A Associate Professor Department of Management IIT Madras	Corporate Finance and Entrepreneurship	12th - 16th Mar. 2014.
20.	Lt. Gen. S. P. Kochhar CEO Telecom Sector Skill Council (TSSC) Gurgaon	Organization Behaviour	17th - 18th Feb. 2014
21.	Prof. (Dr.) P. K. Ghosh Professor of Management, IIM Alumnus. Prof. Ghosh has 4 decades of vast experience in industry and academia. He was a Management Consultant at Core Consultancy Group for 26 years from 1982 onwards and have designed and implemented 105 large and medium projects, all over India, for 53 organizations.	Marketing management and General Management	5th - 8th Feb. 2014

45. List the teaching methods adopted by the faculty for different programmes.

Teaching Learning Evaluation Process

- Continuous
- Immediate feed-back & Transparent feed-back
- Various components of evaluation –Quizzes, term papers, project assignments, case write -ups, presentations, group assignments, tests, group discussions, role plays etc
- Teaching pedagogy emphasizes on current business environment and use of theoretical frameworks , concepts and tools to understand and propose solutions to invariably complex business problems.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The monitoring is done through student feedback and performance; faculty feedback and appraisal; curriculum updation and placement feedback as well as through external audit.

47. Highlight the participation of students and faculty in extension activities.

- Management Association organizes number of events through its Finance, Marketing and HR Clubs to promote learning outside the class
- INTERFACE, an all-India Management convention is organized by Management Association as a two- day event every year in the month of Feb/March. to experientially provide students an opportunity to plan and organize such an event as also allow them to interact with students from other management institutions.
- Students and faculty participate in NIRMAAN & NSS activities to sensitise themselves with the concerns of the lesser privileged of the community

48. Give details of “beyond syllabus scholarly activities” of the department.

- Service to community through outreach activities
- Girl Child Scholarship
- Industry visits
- Faculty mentoring
- Lectures and Faculty development assistance to Schools around

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

An Indicative list is given below:-

- Development of an Integrated Multiperspective framework for effective performance measurement system in supply chain management
- Development of an Integrative Framework for Total Quality Service in Hospitals-An Empirical Investigation
- An Empirical Investigation of Supply Chain Risk Management (SCRM) practices in Indian Automobile Industry and Development of a Normative Framework for SCRM
- Development of a Credit Scoring Methodology for Assessment of Micro-finance Borrowers
- Indian' Management Practices in the I.T Sector :An Empirical Investigation
- Competitiveness of India's Power Sector: Development of a Strategy Framework for Overcoming Challenges to its Critical Determinants
- Role of Trust in Online Social Media Marketing: A Model Building Approach' Investigations into Modeling Online Brand Equity
- An Empirical Investigation into Determinants of Social Entrepreneurial Intention of Students

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

<p>Strengths</p> <ul style="list-style-type: none"> ▪ BITS Brand Image ▪ A differentiator in the form of Practice School component in MBA curriculum ▪ Established BITS systems and procedures ▪ Strong Alumni Network ▪ Competitive fees structure ▪ Strong Ph.D. Research Programme ▪ WILP Linkage & Programs 	<p>Weaknesses</p> <ul style="list-style-type: none"> ▪ Getting quality faculty is big challenge ▪ MBA Academic Schedule out of step with other B-Schools ▪ BITS MBA Brand Equity needs to be created separately ▪ Less focus on “doing” and “being” components than on “knowing” component in MBA curriculum
<p>Opportunities</p> <ul style="list-style-type: none"> ▪ Executive MBA through WILP ▪ Collaboration with other premier institutes for joint or collaborative programmes ▪ Enrolment in MBA program can be increased as well as programs started at Goa and Hyderabad Campuses too ▪ Research , Consultancy and MDP’s ▪ Transform to a Global Business School by Investing in infrastructure and collaborating with an internationally ranked B-School 	<p>Challenges</p> <ul style="list-style-type: none"> ▪ Older IIMs and a few Private Business schools with better Image and location advantage ▪ Superior Placement of MBA Students ▪ Attracting best faculty and quality students

52. Future plans of the department.

Ten-Point Plan To Enhance The Quality Of Our MBA Program In The Immediate Short Term

- Fixing of Minimum pedagogic commonality across all MBA courses as far as possible to give a unified experience to our students as well as increase quality of our program in terms of number of cases/project/journal articles/guest speakers etc.
- Operationalization of Harvard cases and writing of world-class cases by department faculty
- Setting up of common lab facilities with economics department during First/second semester[Amount has been budgeted for in proposed departmental budget yr.2014-15/15-16]
- Floating HR Specialization courses to complete the list of functional streams
- Participation in Rankings[In *the week*, *outlook* and *Business world*]
- Increased Use of practitioners as guest faculty
- Association of mentor faculty Faculty with the program
- More structured orientation and mentorship for the New batch [whose strength this year has been increased to70]
- Use of NAB infrastructure to enhance learning experience[of syndicate rooms for group discussions and Lobby room for other management activities]
- Intensive workshop on HR Outsourcing with People Strong planned in first semester/with GENPAC for business analytics.

- [Two faculty members who completed their industry immersion in HR & Business analytics domain in summers will drive these]

Tentative Next 5 year future growth plan:

- Increase no. of faculty (to 20)and students(to 90)
- Start Executive MBA through WILP
- Improve facilities and infrastructure
- Be ranked in top 20 Management programs in India
- International Exposure to all Faculty through faculty exchange programs in a graded manner
- Conduct regular faculty development Programs
- Establish a center for data analytics
- Strengthen MBA - Curriculum, Academic Scheduling, Placement,
- Explore Collaboration with reputed Indian/foreign B-schools
- Start our Journal
- Establish our trademark annual conference
- Publish 20 International papers in reputed journals annually
- Establish MDP's and Consultancy Activities

53. Any other information regarding your department which you would like to include.

- The department is getting known for galvanizing Evidence- based Management Movement in the country
- The Ph. D. programme is proportionately a larger programme compared to many business schools in the country
- All the faculty members are Ph.D. Qualified from reputed institutions in the country
- Our flagship programme MBA is uniquely differentiated through a 6 month structured internship program called Practice School
- Faculty members part of reviewer board of international journal:

● Anil Bhat – Ad Hoc Reviewer Academy of Management
● Dr. Leela Rani - Ad Hoc reviewer for Asia Pacific Journal of Marketing and Logistics since 2007.
● Dr. Anubha Dadhich - International Journal of Business & Systems research, Journal of Modelling in Management

- Faculty members chaired technical session in conferences

Dr. Remica Agrawal
● Session chair in ICEBM 2015, BITS Pilani, March,2015
● Session chair in POMS NITIE conference , National Institute of Industrial Engineering Mumbai, Dec., 2014
● Session chair at International Conference on Econometrics , Operations Research and Statistics , Zurich , Switzerland, Jan2013
● Session chair at International Conference on Marketing , IIM Kolkatta , India, Dec. 2012

Pilani Campus: Evaluative Report of the Department MATHEMATICS

- 1. Name of the Department :** Mathematics
- 2. Year of establishment of the Department:** 1944
- 3. Is the Department part of a School/Faculty of the university? :**
Departments function as independent entities in the university and are not part of any school or faculty
- 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
 1. Integrated Masters, MSc. (Hons) Maths
 2. Ph.D.
- 5. Interdisciplinary programmes and departments involved:** No
- 6. Courses in collaboration with other universities, industries, foreign institutions, etc.**
 - a. First Degree Thesis (FDTs)
 - b. Practice School (PS)
 - c. Work Integrated Learning Programme (WILP):
 - (i) Calculus (MATH ZC233)
 - (ii) Discrete Structure for Computer Science (MATH ZC222)
 - (iii) Engineering Mathematics- II (MATH ZC232)
 - (iv) Engineering Mathematics-I (Math ZC161)
 - (v) Graphs and Networks (AAOC ZC221)
 - (vi) Linear Algebra and Optimization(MATH ZC234)
 - (vii) Optimization (AAOC ZC222)
 - (viii) Probability & Statistics (AAOC ZC111)
- 7. Details of programmes discontinued, if any, with reasons:** No.
- 8. Examination:** Semester System and Choice Based Credit
- 9. Participation of the department in the courses offered by other departments –**
 - (a) The following courses are needed to meet the General Institutional Requirement (under the head of Mathematics Foundation):
 - (i) MATH F 111 – Mathematics I
 - (ii) MATH F 112 – Mathematics II
 - (iii) MATH F 211 – Mathematics III
 - (iv) MATH F 113 - Probability & Statistics



These courses are also offered by all other department and Dept of Maths is participating.

(b) Following courses are offered by Department of Pharmacy

- (i) BITS F113 General Mathematics I
- (ii) BITS F114 General Mathematics II
- (iii) BITS F 218 General Mathematics III

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	03	03
Associate Professors		05	05
Asst. Professors		10	09
Others		00	00

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Year of Experience	No of Ph.D / M. Phil students guided for the last 4 year
Balram Dubey	Ph.D	Professor	Mathematical Biology	21	02
C B Gupta	Ph.D	Professor	Statistics and Operations Research	25	01
Rajiv Kumar	Ph.D	Professor	Partial Differential Equation, Nonlinear Analysis	23	01
Chandra Shekhar	Ph.D	Associate Professor	Operation Research, Queuing Theory, Fuzzy Theory Logic	11	01
D K Maiti	Ph.D	Associate Professor	Computational Fluid Dynamics	11	02



G Venkiteswaran	Ph.D	Associate Professor	Partial Differential Equations, Monte Carlo methods	12	
P H Keskar	Ph.D	Associate Professor	Algebra	21	01
Rakhee	Ph.D	Associate Professor	Performance analysis of communication networks	11	
Amit K Verma	Ph.D	Assistant Professor	Singular BVPs, Monotone Iterative Techniques	6	01
Ashish Tiwari	Ph.D	Assistant Professor	Stoke flow	5	
B K Sharma	Ph.D	Assistant Professor	Fluid mechanics modelling of blood flow	9	01
Devendra Kumar	Ph.D	Assistant Professor	Numerical solutions of BVPs	6	
Padma Murali	Ph.D	Assistant Professor	Mathematics- Mathematical Biology	7	
Sangita Yadav	Ph.D	Assistant Professor	Finite element method, Discontinuous Galerkin Methods	4	
Shivi Agrawal	Ph.D	Assistant Professor	Fuzzy Logic, Fuzzy DEA, Malmquist, Productivity Index, Productivity, Efficiency	8	
Suresh Kumar	Ph.D	Assistant Professor	Cosmology	11	
Trilok Mathur	Ph.D	Assistant Professor	Fractional calculus, Geometric function Theory	11	01
Atasi Patra Maiti	Ph.D	Visiting Faculty	Mathematical Biology	04 months	

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors visiting Faculty (Last Five Years): NIL

13. Percentage of classes taken by temporary faculty – programme-wise information: NIL



14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation): 250/18
= 13.89:1 Ph D: 0.5:1

15. Number of academic support staff (technical) and administrative staff: 02

16. Research thrust areas as recognized by major funding agencies :(as reco. by UGC – SAP and DST-FIST)

- Mathematical Modelling,
- Computational
- Fluid Dynamics
- Operations Research

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Computational Investigation of Vortex Shedding and Heat Transfer from a Heated Square Cylinder in Presence of Eddy-Promoting Rectangular Cylinder With Wall Proximity	Dr. Dilip Kumar Maiti	DST-SERC (under Fast Track Proposals for Young Scientists Scheme)	10.18 Lakhs	Nov 2008 To Oct 2011
2.	Cardiovascular Disease in Human Population: Mathematical Modeling and Analysis of its Incidence, Risk Factors and Preventive Strategies	Dr. Padma Murali	UGC, New Delhi	8.44 lakhs	1 st Feb, 2011 to 31 st Jan, 2014
3.	Dynamics of Biological Species: Some Mathematical Models	Dr. Atasi Patra	WOS-A, DST, New Delhi	10.86 Lakhs	12 th June, 2012 to 31 st March, 2015
4.	An Impact Assessment Study of Pradhan Mantri Gram Sadak Yojana (PMGSY) on Gender.	Co-Investigator: Dr. Shivi Agarwal (PI Dept of Hss) Dr. Sanjv Kumar Choudhary	National Rural Roads Developments Agency (NRRDA), New Delhi		Jan 2015 to April 2015
Total Rs.				29.48 Lakhs	



Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Dark Energy Modelling of Cosmic Acceleration with Observational Constraints in Einstein Gravity and Modified Theories	Dr. Suresh Kumar	DST, New Delhi (under the FAST track scheme for young scientists)	14.16 Lakhs	Starting from 06-09-2013 (for a period of 3 years)
2	Modelling of cardiovascular flows and influence of magnetic field on circulation	Dr. Ashish Tiwari	DST, New Delhi (under the FAST track scheme for young scientists)	11.62 Lakhs	Starting from 30-10-2014 (for a period of 3 years)
Total Rs.				25.78 Laksh	

18. Inter-institutional collaborative projects and associated grants received

- a) National collaboration: **NIL** b) International collaboration: **NIL**

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Completed:

S. No.	Funding Agency	Sanctioned Amount (INR)	Duration
1.	UGC, New Delhi (DRS-SAP PROGRAMME)	91.5 Lakhs	2010 to 2015

Ongoing

S. No.	Funding Agency	Sanctioned Amount (INR)	Duration
1.	DST-FIST grant	100 Lakhs	October 2014 to September 2019

20. Research facility / centre with

- state recognition
- national recognition :Computational Laboratory supported by UGC-SAP and DST-FIST
- international recognition



21. Special research laboratories sponsored by / created by industry or corporate bodies : No

22. Publications:

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	115
2	Monographs	01
3	Chapters in Books	05
4	Edited Books	0
5	Books with ISBN with details of publishers	01
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	115
7	Citation Index – range / average	0-105, 7.7577
8	SNIP	0.046-3.9, 1.405
9	SJR	0.11-3.2, 0.9597
10	Impact Factor – range / average	0-7.77, 1.4423
11	h-index	6
12	Conference paper presented	81

Details of the publications as per the number give above (Give details in the last five years

SL No.	Authors	Title of the Publication	Details of the Journal	National/International	Year
1	Jain, M., Bhagat, A. and Shekhar, C.,	Double orbit finite retrieval queues with priority customers and service interruptions	Applied Mathematics and Computation(Elsevier), Vol 253, pp 324-344	International	2015
2	Amit K. Verma, Mandeep Singh	Singular Nonlinear 3 Point BVPs arising in Thermal Explosion in a cylindrical reactor	Journal of Mathematical chemistry (Springer), 53 (2), 670-68	International	2015
3	Mandeep Singh, Amit K. Verma, Ravi P. Agarwal	Maximum and anti-maximum principles for three point SBVPs and nonlinear three point SBVPs	Journal of Applied Mathematics and Computing, Vol. 47, No. 1-2, 249-263	International	2015



4	Amit K. Verma, Lajja	Higher order time integration formula with application on Burger's equation	International Journal of Computer Mathematics, Vol. 92, No. 4,756-771	International	2015
5	Shekhar, C., Kumar, S. and Singh, H.	Assessment of the Yoga on the status of the Physical Fitness among Children of the Residential School	International journal of Latest Techonology in Engineering, Management and Applied Science, Vol. 4, No. 3, pp. 16-20	International	2015
6	Samir kara, Amiya K. Pani and Sangita Yadav	A priori hp-estimates for discontinuous Galerkin approximations to linear hyperbolic integro differential equations	Appl. Numer. Math., 96, 1-23	International	2015
7	Amit K. Verma, M. Singh,	Maximum principle and nonlinear three point singular boundary value problems arising due to spherical symmetry	Communications in Applied Analysis, Vol. 19, 175-190	International	2015
8	O. Akarsu, S. Kumar, R. Myrzakulov, M. Sami and L. Xu	Cosmology with hybrid expansion law: scalar field reconstruction of cosmic history and observational constraints	Journal of Cosmology and Astroparticle Physics, 01, 022.	International	2014
9	Dubey B., Patra Atasi and Sahani S. K.	Modelling the dynamics of a renewable resource under harvesting with taxation as a control variable	Appl. Appl. Math, 9(2), 592-621.	International	2014
10	Upadhyay R. K., Patra Atasi, Dubey B. and Thakur N. K	A predator-prey interaction model with self- and cross-diffusion in aquatic systems	J. Biol. Systems, 22(4),1450028,22 pages.	International	2014
11	Dubey B, Patra Atasi and Upadhyay R. K.	Dynamics of phytoplankton, zooplankton and fishery resource model	Appl. Appl. Math., 9(1) 217-245.	International	2014



12	CB Gupta, S R Singh and Vipin Kumar	An EOQ Inventory Model with Two Level Credit-Linked Demands under permissible delay in payments for Weibull Deteriorating Items,	Ganita Sandesh, 26(2), 145-157	National	2014
13	CB Gupta, Vipin Kumar and Anupama Sharma	An EOQ model for time dependent demand and parabolic holding cost with preservation technology under partial backlogging for deteriorating items	International journal of education and science research review,1(2),179-185.	International	2014
14	CB Gupta, Naresh Kumar Agarwal, Anil Kumar Sharma and Sanjay Kumar	An economic order quantity model of items with two warehouses and stock dependent consumption rate	Aryabhatta Journal of Mathematics & Informatics6(1), 77-86.	National	2014
15	Mehrotra, R., Jain, V., Shekhar, C. and Mehrotra, S	Genome wide analysis as Arabidopsis Thaliana reveals high frequency of AAAGN7CTTT motif	Metagene Journal (Elsevier) 2, 606-615.	International	2014
16	Jain, M., Shekhar, C. and Shukla, S.	Machine repair problem with an unreliable server and controlled arrival of failed machines	OPSEARCH (Springer), 51(3), 416-433.	International	2014
17	Shekhar, C., Jain, M., and Bhatia, S.	Fuzzy analysis of machine repair problem with switching failure and reboot	Journal of Reliability and Statistical Studies, 7, 41-55.	International	2014
18	Jain, M., Shekhar, C., and Shukla, S.	Markov model for switching failure of warm spares in machine repair system	Journal of Reliability and Statistical Studies, 7, (2014) 57-68.	International	2014



19	Jain, M., Shekhar, C., and Rani, Vershal,N	N policy for a multi-component machining system with imperfect coverage, reboot and unreliable server	Production and Manufacturing Research, 2(1), (2014) 457-476	International	2014
20	Jain, M., Shekhar, C., and Shukla, S.,	Vacation queueing model for a machining system with two unreliable repairmen	International Journal of Operational Research, 20(4),469-491	International	2014
21	Maiti, D. K. and Bhatt, R	Numerical study on flow and aerodynamic characteristics: Square cylinder and eddy-promoting rectangular cylinder in tandem near wall	Aerospace Science and Technology, Elsevier, 36, 5-20	International	2014
22	Maiti, D. K. and Bhatt, R	Vortex shedding & suppression aerodynamic characteristics of square cylinder due to offsetting of rectangular cylinders towards a plane	Ocean Engineering, Elsevier, , 82, 91-104	International	2014
23	Sarvesh Kumar and Sangita Yadav	Method of Characteristics Combined with Finite Volume Element Methods for Incompressible Miscible Displacement Problems in Porous Media	International Journal of PDEs, 1-16	International	2014
24	Deepjyoti Goswami, Amiya K. Pani and Sangita Yadav	Optimal L2 estimates for semidiscrete Galerkin method applied to parabolic integro-differential equations with nonsmooth data	ANZIAM J. 55, 245—266	International	2014
25	Shivi Agarwal	Measure of Efficiency by Fuzzy Data Envelopment Analysis Model	Fuzzy Information and Engineering, 6,59-70	International	2014



26	Shivi Agarwal, Shiv Prasad Yadav and S.P.Singh	Sensitivity analysis in data envelopment analysis	International Journal of Operational Research, , 19(2), 174-185	International	2014
27	Suresh Kumar, L. Xu	Observational constraints on variable equation of state parameters of dark matter and dark energy after Planck	Physics Letters B, 737, 244-247	International	2014
28	Suresh Kumar	Probing the matter and dark energy sources in a viable Big Rip model of the Universe	Modern Physics Letters A, 29, 1450119	International	2014
29	O. Akarsu, Suresh Kumar, R. Myrzakulov, M. Sami, L. Xu	Cosmology with hybrid expansion law: scalar field reconstruction history and observational constraints	Journal of Cosmology and Astro particle Physics 01 ,022	International	2014
30	O. Akarsu, T. Dereli, S. Kumar and L. Xu	Probing Kinematics of the Universe with linearly time-varying deceleration parameter,	The European Physical Journal Plus, Plus 129, 22	International	2014
31	Trilok Mathur, Ruchi Mathur and Deepa Sinha	Sufficient conditions for generalized Sakaguchi type functions of order β ,	Journal of Applied Engineering Mathematics, 4(1) , 127-131	International	2014
32	Trilok Mathur, Ruchi Mathur and Deepa Sinha	Applications of Feket-Szegö Inequalities for Generalized Sakaguchi type Functions to Fractional Derivative Operator	MATEMATIKA, 30(1), 89-96	International	2014
33	T. Mathur, R. Mathur and D. Sinha	Characterization and Subordination Properties for λ -Spirallike Generalized Sakaguchi Type Functions	Palestine Journal of Mathematics, , 3(1), 70-76	International	2014



34	Jitender Kumar, K.V. Krishna	Affine Near-Semiring over Brandt semigroup	Communications in Algebra, 42(12), 5152-5169	International	2014
35	Jitender Kumar, K.V. Krishna	The large rank of finite semigroup using prime subsets	Semigroup Forum, 89(2), 403-408	International	2014
36	M. Singh and Amit K. Verma	Picard type iterative scheme with initial iterates in reverse order for a class of nonlinear three point BVPs	International Journal of Differential Equation,), Volume 2013 (2013), Article ID 728149, 6 pages.	International	2013
37	M. Singh and Amit K. Verma	On a monotone iterative method for a class of three point nonlinear nonsingular BVPs with upper and lower solutions in reverse order	Journal of Applied Mathematics and Computing, 43, 99–114.	International	2013
38	B. Dubey, A. Patra , P.K. Srivastava and Uma S. Dubey	Modeling and analysis of an SEIR model with different types of nonlinear treatment rates	Journal of Biological Systems,21 (3) ,1350023,	International	2013
39	R. K. Upadhyay, R. K. Naji, S. N. Raw and B. Dubey	The role of top predator interference on the dynamics of a food chain model	Communications in Nonlinear Science and Numerical Simulation, 18(3), 757 – 768.	International	2013
40	B. Dubey and A. Patra	A mathematical model for optimal management and utilization of a renewable resource by population	Journal of Mathematics, , Vol 2013, Article ID 613706, 9 pages	International	2013
41	B. Dubey and A. Patra	Optimal Management of a Renewable Resource Utilized by a Population with Taxation as a Control Variable	Nonlinear Analysis: Modelling and Control, 18(1), 37-52.	International	2013



42	Bhupendra K. Sharma, A. P. Singh, K. Yadav, and R. C. Chaudhary	Effects of chemical reaction on magneto-micropolar fluid flow from a radiative surface with variable permeability	International Journal of Applied Mechanics and Engineering, 18(3) , 833-851.	International	2013
43	Bhupendra K. Sharma, S. Gupta, V.V. Krishna and R.J. Bhargavi	Soret and Dufour effects on an unsteady MHD mixed convective flow past an infinite vertical plate with Ohmic dissipation and heat source.	Afrika Matematika, 24, 1-23	International	2013
44	Bhupendra K. Sharma	Comments on the paper "A study of induced magnetic field with chemically reacting and radiating fluid past a vertical permeable plate"	Journal of Engineering Physics Thermo physics,), 86 (1), 238-239.	International	2013
45	Bhupendra K. Sharma	Comment on "Steady mixed convection stagnation-point flow of upper convected Maxwell fluids with magnetic field	International Journal of Physical Science, 8(13), 508-509.	International	2013
46	C. B. Gupta, S. Kumar	A study on role of sterilization and its impact on society	Ganita Sandesh, , Vol. 26(2) (2013) 77-83.	National	2013
47	C. B. Gupta, T. Kumar and S.R. Singh	A Fuzzified EMQ Inventory Model With Uniform Distribution and Time Dependent demand	IJESR, 3 (8) ,4444-4453	International	2013
48	C. B. Gupta, V. Kumar and G. Pathak	A Deterministic Inventory model for deteriorating items with selling price dependent demand and parabolic time varying holding cost under trade credit	IJSCE, 3(4) , 33-37	International	2013



49	M. Jain, C. Shekhar, and S. Shukla	Queueing analysis of two unreliable servers machining system with switching and common cause failure	International Journal of Mathematics in Operational Research, 5(4), 508-536	International	2013
50	C. Shekhar and M. Jain	Finite queueing model with multitask servers and blocking	American Journal of Operational Research, 3(2A) 17-25	International	2013
51	M. Jain, C. Shekhar and S. Shukla	Machine repair problem with an unreliable server and controlled arrival of failed machines	OPSEARCH, DOI 10.1007/s12597-013-0152-3	International	2013
52	D. Kumar,	A computational technique for solving boundary value problem with two small parameters	Electronic Journal of Differential Equations, 2013(30), 1-10	International	2013
53	J. Iqbal and J. Ali	Wavelet packet transform on $L^p(R)$ spaces	Journal of Nonlinear Science and Application, 6, 305-311	International	2013
54	I. Uddin, M. Imdad and J. Ali	Convergence of Ishikawa iterative process involving a hybrid pair of generalized nonexpansive mappings in Banach spaces	Bull. Malaysian Math. Sci. Soc,	International	2013
55	P. Murali and M. Raman.	Modeling the dynamics of amyloid formation of islet beta cells under therapeutic interventions and its role in discovery of novel target for drug action	International Journal of Life sciences and Medical Research, 3(1), 1-10	International	2013
56	Rakhee, G. Sharma, K. Priya	Analysis of G-queue with unreliable server	OPSEARCH, Vol 50 (3), pp. 334-345	International	2013



57	D. Goswami, Amiya K. Pani and S. Yadav	Optimal error estimates of two mixed finite element methods for parabolic integro-differential equations with nonsmooth initial data	Journal of Scientific Computing, 56 (2013), 131-164	International	2013
58	S. Kumar	Anisotropic model of a dark energy dominated universe with hybrid expansion law	Gravitation and Cosmology, 19 (4) , 284-287	International	2013
59	A. Tiwari and S. Deo	Pulsatile flow in a cylindrical tube with porous walls: Applications to blood flow	Journal of Porous Media 16 (4), 335-340	International	2013
60	Pramod Kumar Yadav, Ashish Tiwari, Satya Deo, Manoj Kumar Yadav, Anatoly Filippov, Sergey Vasin, and Elena Sherysheva	Hydrodynamic Permeability of Biporous Membrane	Colloid Journal 75 (4) (2013), 473-482.	International	2013
61	Devendra Kumar, A. S. Yadaw, and M. K. Kadalbajoo	A parameter-uniform method for two parameters singularly perturbed boundary value problems via asymptotic expansion	Applied Mathematics and Information Science, 7, 1525-1532	International	2013
62	Madhu Jain, G.C. Sharma, and Chandra Shekhar	Finite Queueing Model with Multitask Servers and Blocking	American journal of operational Research (SAP), 3 (2A), 17-25	International	2013



63	Amit K. Verma	The Monotone iterative method and regular singular nonlinear BVP in the presence of reverse ordered upper and lower solutions	Electronic J. Differential Equation, Vol, No. 4, 1-10, ISSN: 1072-6691	International	2012
64	Amit K. Verma, Ravi P. Agarwal and Lajja Verma	Bessel functions and singular BVPs arising in physiology in the presence of upper and lower solutions in reverse order'	Journal of Applied Mathematics and Computing (Springer), Volume 39, Numbers 1-2 , 445-457.	International	2012
65	Amit K. Verma and Ravi P. Agarwal	Upper and lower solutions method for regular singular differential equations with quasi-derivative boundary conditions	Communications in Nonlinear Science and Numerical Simulation (Elsevier), Volume 17, Issue 12, Pages 4551–4558.	International	2012
66	K. Pandey, Lajja Verma and Amit K. Verma	Du Fort-Frankel finite difference scheme for Burgers' equation	Arabian Journal of Mathematics (Springer)	International	2012
67	Dubey B.:	Modelling effects of two interacting populations on a renewable resource	Natural Resource Modeling, 25(2), 325 – 363	International	2012
68	Bhupendra K. Sharma, P. K. Sharma, T. Chand, and R. C. Chaudhary	Analytical investigation of the hydromagnetic flow in a porous medium due to periodically heated oscillating plate	International Journal of Applied Mechanics and Engineering, 17 (4), 1367-1375	International	2012



69	B. K. Sharma	Comment on "Fluctuating hydromagnetic natural convection flow past a magnetized vertical surface in the presence of thermal radiation" by Ashraf, M., Asghar, S. and Hossain, M. A.' [Thermal Science, Vol. 16, 2012, OnLine-First Issue 00, Pages: 45-45: doi:10.2298/TSCI110805 045A].	Thermal Science, Vol. 16 (4), 1255-1256	International	2012
70	B. K. Sharma, P. K. Sharma and R. C. Chaudhary	Unsteady flow through porous medium induced by periodically rotating half-filled horizontal concentric cylindrical annulus with heat transfer	International Journal of Physical Sciences Vol. 7(10), 1530 – 1539	International	2012
71	B. K. Sharma, A. K. Jha and R. C. Chaudhary	The effect of suction on magnetohydrodynamic forced flow of a viscous electrically conducting fluid through a porous medium induced by an rotating disk	International Journal of Applied Mechanics and Engineering, 17 (4), 1297-1308	International	2012
72	B. K. Sharma, K. Yadav, N. K. Mishra and R. C. Chaudhary	Soret and Dufour effects on unsteady MHD mixed convection flow past a radiative vertical porous plate embedded in a porous medium with chemical reaction	Applied Mathematics, Vol. 3(7), 717-723	International	2012



73	B. K. Sharma	Comment on "Analytical solution to the problem of MHD free convective flow of an electrically conducting fluid between two heated parallel plates in the presence of an induced magnetic field	International Journal of Applied Mathematics and Computation, Vol. 4(3), pp 312–313	International	2012
74	B. K. Sharma, T. Chand and R. C. Chaudhary	Hydro magnetic forced flow between a rotating disc and a naturally permeable stationary porous disc saturated fluid	Journal of Petroleum and Gas Engineering, Vol. 3(1), 8-15	International	2012
75	B. K. Sharma	Comment on "Induced magnetic field with radiating fluid over a porous vertical plate: Analytical study" by Sahin Ahmed [Journal of Naval Architecture and Marine Engineering 7(2010), 83-94]	Journal of Naval Architecture and Marine Engineering, 9, T1-T2	International	2012
76	C. B. Gupta, S R Singh and Tarun Kumar	Genetic algorithm based multi product and multi agent inventory optimization in supply chain management	International journal of modelling and optimization, Vol.2,No.6		
77	Jain, M., Shekhar, C. and Shukla, S	Queueing Analysis of a Multi-component Machining System having Unreliable Heterogeneous Servers & Impatient Cus	American Journal of Operations Research, Vol. 2, No. 3, pp. 16-26	International	2012
78	Devendra Kumar, and M. K. Kadalbajoo	A parameter uniform method for singularly perturbed differential-difference equations with small shifts	Journal of Numerical Mathematics, 21(1),1-22	International	2012



79	Maiti, D. K	Aerodynamic Characteristics of Rectangular Cylinders Near a Wall	Ocean Engineering (An Int. J. of R & D), Elsevier, 54, 251-260	International	2012
80	M. Imdad, Javid Ali and M. Hasan	Common fixed point theorems in fuzzy metric spaces employing common property (E.A)	Mathematical and Computer Modeling (Elsevier Press), 55(2012), 770-778	International	2012
81	V. Popa, M. Imdad and Javid Ali:	On strict common fixed points of hybrid mappings in 2-metric spaces	J. King Saud University-Science (Elsevier Press), 24, 289-294.	International	2012
82	M. Imdad, Javid Ali and M. Hasan	Common fixed point theorems in modified intuitionistic fuzzy metric spaces	Iranian J. Fuzzy Systems, 9(5)(2012), 77-92.	International	2012
83	Lajja Verma	L-stable derivative free error corrected trapezoidal rule for Burgers equation with inconsistent initial and boundary conditions	International Journal of Mathematics and Mathematical Sciences, (Hindawi) Volume 2012 (2012), Article ID 821907	International	2012
84	Padma Murali and Rajiv Kumar	Analysis of an Age Dependent Epidemic Model	Journal of Informatics and Mathematical Sciences, , Vol. 4, No.2, pp. 137-156, 2012.	International	2012
85	Padma Murali, P. R. Deepa	A Bio-mathematical Approach to Evaluate the Risk Burden of Hypertension and Hyperlipidemia in Diabetic Cardiovascular Disease	American Journal of Bioinformatics Research, vol 2, No.5, pp 86-91, 2012	International	2012
86	P. H. Keskar	Multiplication : From Thales to Lie	Resonance, A Journal of Science Education, Springer (published for Indian Academy of Sciences), vol 17, no 5	National	2012



87	Geetanjali Sharma, G.N. Purohit, and Rakhee:	Analysis of Multiple Queue Model in Cellular Networks with Sub Rating of Channels	King Abdulaziz University Journal, (Saudi Arabia), Vol. 23, No. 1, pp.85-128,	International	2012
88	Kusum Deep, Shashi, V. K. Katiyar	A New Real Coded Genetic Algorithm Operator: Log Logistic Mutation	Advances in Intelligent and Soft Computing, Springer, Volume 130, pp 193-200	International	2012
89	Trilok Mathur, Ruchi Mathur and Deepa Sinha	Some Starlike and Convexity properties of Sakaguchi Classes for Hypergeometric functions	Int. J. Open Problems Complex Analysis, 4(1), 11-19	International	2012
90	Trilok Mathur, Ruchi Mathur	On some New inequalities involving generalized fractional integral operator	Journal of Rajasthan academy of physical sciences, 11 (1), 63-68	National	2012
91	C. B. Gupta, A. K Malik, and S. R. Singh	A Two Warehouse Inventory Model for Deteriorating Items with Demand Dependent Production	Ganita Sandesh, 24(1), 55-62	National	2011
92	S. R. Singh, Tarun Kumar and C. B. Gupta	A Soft Computing based Inventory Model with Deterioration and Price Dependent Demand'	International Journal of Computer Applications, 36(4),10-17	International	2011
93	Devendra Kumar and Mohan K. Kadalbajoo	A parameter-uniform numerical method for time-dependent singularly perturbed differential-difference equations'	Applied Mathematical Modelling,35, 2805-2819	International	2011
94	Kusum Deep, V.K Katiyar and Shashi:	Minimizing Lennard-Jones Potential Using a real coded Genetic Algorithm and Particle Swarm Optimization	World Journal of Modelling and Simulation,7(4), 312-320	International	2011
95	Shivi Agarwal, Shiv Prasad Yadav and S.P.Singh	A New Slack DEA Model to Estimate the Impact of Slacks on the Efficiencies	International Journal of Operations Research, 12(3), 241-256	International	2011



96	K. Pandey and Lajja Verma	A Note on Crank-Nicolson Scheme for Burgers' Equation	Applied Mathematics,2, 883-889	International	2011
97	K. Pandey, Lajja Verma and A. K. Verma:	L-Stable Simpson's 3/8 Rule and Burgers' Equation	Applied Mathematics and Computation, 218, 1342-1352	International	2011
98	Amit K. Verma and Lajja Verma	Nonlinear singular BVP of limit circle type and the presence of reverse ordered upper and lower solutions	International J. Differential Equation, Vol. 2011, Article ID 986948	International	2011
99	Amit K. Verma	Monotone iterative method and zero's of Bessel functions for nonlinear singular derivative dependent BVP in the presence of upper and lower solutions	Nonlinear Analysis: Theory, Methods & Applications, 74 (14), 4709-4717	International	2011
100	R. K. Pandey and Amit K. Verma:	On a constructive approach for derivative dependent singular boundary value problems	International Journal of Differential Equations, Vol. 2011, Article Id 261963, 16 pages	International	2011
101	D. K. Maiti	Numerical study on heat/mass transfer by shear/thermal/solutal-convection in a cavity under counteracting buoyancies	Heat and Mass Transfer, 47(3), 245-257	International	2011
102	D. K. Maiti	Dependence of Flow Characteristics of Rectangular Cylinders Near a Wall on the Incident Velocity', Acta Mechanica	Acta Mechanica, 222, 273-286	International	2011



103	Dubey B., Zhao T.G., Jonsson M. and Rahmanov H.A	Solution to the accelerated-predator-satiety Lotka–Volterra predator–prey problem using Boubaker polynomial expansion scheme	J.Theor. Biology; 264(1); 154 – 160	International	2010
104	Dubey B., Shukla J.B., Sharma S., Agarwal A. K. and Sinha P .	Mathematical model for chemical defence mechanism of two competing Species	Nonlinear Analysis : Real World Applications;11; 1143 – 1158	International	2010
105	Upadhyay R.K., Thakur N.K. and Dubey B.,	Nonlinear non-equilibrium pattern formation in a spatial aquatic system: effect of fish predation	Journal of Biological Systems; 18(1); 129 – 159	International	2010
106	Misra A.K. and Dubey B;	A ratio-dependent predator prey model with delay and harvesting	Journal of Biological Systems, 18(2); 437 – 453	International	2010
107	Dubey B. and Narayanan A. S	Modelling effects of industrialization, population and pollution on a renewable resource	Nonlinear Analysis : Real World Applications; 11; 2853 – 2848	International	2010
108	Dubey B;	A model for the effect of pollutant on human population dependent on a resource with environmental and health policy	Journal of Biological Systems; 18(3); 571-592	International	2010
109	R. K. Pandey and A. K. Verma;	Monotone method for singular BVP in the presence of upper and lower solutions	Applied Mathematics and Computation; 215; 3860–3867	International	2010
110	R. K. Pandey and A. K. Verma	On solvability of derivative dependent; doubly singular boundary value problems	Journal of Applied Mathematics and Computing; 33; 489–511	International	2010



111	C B Gupta, A. K Malik and S R Singh	A Two Warehouse Inventory Model for Deteriorating Items with Demand Dependent Production	Ganita Sandesh; 24; 55-62	National	2010
112	Sunita Kumawat and Trilok Mathur	On certain p -valently Analytic Function Involving Hadamard Products using Ruschwegh Derivative	International Journal of Advanced Engineering & Application; 3; 298-302	International	2010
113	Verma S., Rakhee, Kumari Savita and Artemi M.A	Time Efficient Indexing Technique for Querying Location Dependent Data in Wireless Broadcast	International Journal of Computer Applications; 7 (10); 1-6	International	2010
114	Trilok Mathur, Sunita kumawat	On certain p -valently analytic function involving hadmard products using Ruschweyh derivative	Int. Journal of Adv. Engg. App. Vol. 3, 298-302	International	2010
115	Shivi Agarwal, Shiv Prasad Yadav and S. P. Singh	DEA Based Estimation of the Technical Efficiency of state Transport undertakings in India	OPSEARCH, 47 (3), 216- 230	International	2010

Conference Paper presented

S. No	Authors	Title of Publication	Held at	National /International	During
1	P.K. Yadav, A. Tiwari, S. Deo, A.N. Filippov, S.I. Vasin	'Hydrodynamic permeability of membranes built up by spherical particles covered by porous shells: effect of stress jump condition' in conference 'National symposium on Application of Various Techniques in Fluid Dynamics'	BSNV Post Graduate College, Lucknow	National	10-12 Feb., 2011
2	Sharma, B. K.	First order chemical reaction on MHD mixed convective flow past an infinite vertical plate with joule, Soret and Dufour effects', in national conference on 'Role of Mathematical and Physical	Government Degree College Karanprayag (Chamoli), Uttarakhand	National	21-22 October, 2011.



		Sciences in Engineering and Technology			
3	C B Gupta	Effect of Learning and Stochastic Back orders on various flexible Inventory models' in national seminar on 'Recent Trends in Advancement of Mathematical and Physical sciences'	DN(PG) college, Meerut	National	5-6 February, 2011.
4	C. B. Gupta, S. R. Singh, Vipin Kumar and Dhir Singh	An EOQ Inventory model for Weibull deteriorating items with two level credit-linked demand under permissible delay in payments' in conference '81st Annual Session of The National Academy of Sciences, India	University of Kerala, Kariavattom, Thiruvananthapuram	National	24-26 November 2011
5	Vipin Kumar, C B Gupta and S R Singh	Modeling of an integrated inventory system with price dependent demand and deterioration' in conference '81st Annual Session of The National Academy of Sciences, India' organized	University of Kerala, Kariavattom, Thiruvananthapuram	National	November 24-26, 2011.
6	Kusum Deep, Shashi, V.K Katiyar	A New Real Coded Genetic Algorithm Operator: Log Logistic Mutation' in conf. 'International conference on soft computing for problem solving	Institute of Engineers Roorkee	National	20-22 December 2011
7	Shivi Agarwal	Fuzzy Data Envelopment Analysis Model for Efficiency Measure', in conference International Conference on Advances in Modeling, Optimization and Computing	Indian Institute of Technology Roorkee, Roorkee,	National	December 5-7, 2011
8	Shivi Agarwal	Fuzzy Slack Based Measure (SBM) of Data Envelopment Analysis Model', in conference 'XV Annual International Conference of the Society of Operations Management (SOM) 2011	Indian Institute of Management Calcutta, Kolkata	National	December 16-18 , 2011



9	Trilok Mathur	'How to Teach Easily?' in conference 'International Conference on Innovative Thoughts- Education, Management, Art, Science, Linguistic (Teaching and Learning)'		National	
10	Trilok Mathur	'Coefficient inequalities for generalized Sakaguchi type functions' in conference '77th Annual Conference of INDIAN MATHEMATICAL SOCIETY	Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra	National	Dec. 27-30, 2011
11	Madhu Jain, Chandra Shekhar and Shalini Shukla	'Queueing analysis of machining system with switching and common cause failure', in conference 'International Conference on Advances in Modeling, Optimization and Computing'	Indian Institute of Technology Roorkee, Roorkee,	National	December 5-7, 2011
12	Maiti D.K.:	Attended the conference '7th international congress on industrial and applied mathematics 2007 (ICIAM11)'	Vancouver, BC, Canada,	International	18-22 July 2011.
13	S. Sharma:	'Numerical Simulation of heat and mass transfer of micropolar fluid in an axisymmetric stagnation flow with variable thermal conductivity', in conference 'International conference on fluid dynamics & its applications'	BNMIT, Bangalore	National	20th -22nd July 2011.
14	K Gupta & S Sharma:	'Nonlinear Analysis of Traffic Jams in a Continuum Model Using Wavefront Expansion Technique', in conference '7th International Congress on Industrial & Applied Mathematics' at Vancouver	BC, Canada	International	18th -22nd July, 2011
15	Sartaj Singh Manhas	'Study of Ultrathin films of Octadecanethiol at air-water interface' in conference 'International Conference on Nanomaterials and Nanotechnology	University of Delhi	National	Dec. 18-21, 2011



		(ICNANO)'			
16	Amit K. Verma	Presented a paper entitled —On a Class of Singular BVP Arising in Thermal Explosion: Upper and Lower Solutions in Reverse Order in _National Conference on Modeling, Computational Fluid Dynamics & Operations Research	Department of Mathematics BITS Pilani, Rajasthan	National	February 4-5, 2012
17	Ashish Tiwari	Presented a paper entitled —Pulsatile flow through cylindrical tube with porous walls: Application to blood flow in National conference on Computational Fluid Dynamics, Mathematical modeling and Operation research	BITS Pilani	National	4-5 Feb., 2012
18	Anil Kumar Sharma, C. B. Gupta, Naresh Kumar Agarwal and Satish Kumar Khurana:	—Replenishment policy for single item with inflation time value of money of deteriorating items in the National conference on Modeling, Computational Fluid Dynamics and Operations Research held	BITS Pilani	National	4-5 February 2012
19	C. B. Gupta, Neeraj Kumar and S R Singh	—An inventory model with Krelease rule multivariate demand and lost sales with time value of money and limited storage facility in the National conference on Modeling, computational Fluid dynamics and Operations Research	BITS Pilani	National	4-5 February 2012
20	Naresh Kumar Agarwal, C. B. Gupta, Anil Kumar Sharma and Rahul Jain	Ordering and Pricing policies of an inventory model for deteriorating items having known demand with second scale in the National conference on Modeling, computational Fluid dynamics and Operations Research	BITS Pilani,	National	4-5 February 2012
21	C. B. Gupta,	—Impact of Family Planning Programme at International	Department of Mathematics,	National	21-24 November 2012



	Sachin Kumar and R B Singh:	conference on History and Development of Mathematical Sciences & Symposium on Non Linear Analysis	MDU, Rohtak		
22	C. B. Gupta	National Conference on Numerical and Mathematical Modeling in Electrical Engg. and Applied Sciences'	Poornima College of Engg. Jaipur	National	21.01.2012
23	C. B. Gupta	National Seminar on Mathematical and Physical Sciences	D. N. (PG) College, Meerut, U.P.,	National	17-18 March, 2012
24	C. B. Gupta	National conference on Recent Advancements in Communication Systems and Image Processing	BKBIET, Pilani	National	2-3 April 2012
25	C. B. Gupta	International conference on History and Development of Mathematical Sciences & Symposium on Non Linear Analysis'	Department of Mathematics, MDU Rohtak,	National	22-23 November 2012
26	Deepmala Agarwal	Presented paper 'On Affine (non) Equivalence of Kasami Bent Functions' in the 'International Conference on Mathematics in Engineering and Business Management'	Stella Maris College and Loyola Institute of Business Administration, Chennai,	National	March 9-10, 2012
27	Deepmala Agarwal	'Results on 8-Variable Rotation Symmetric bent Boolean functions' in the 'International Conference on Mathematical Sciences	Shri Shivaji Education Society, Amravati's Science College, Nagpur	National	December 28-31, 2012
28	Shekhar, C.	Presented a paper 'Queueing model for a unreliable repairmen machining system with vacation , in conference 'National Conference on Advances in Mathematical Sciences'	Motilal Nehru National Institute of Technology, Allahabad	National	October 5-7, 2012
29	D. K. Maiti	'A Square Cylinder and A Rectangular Cylinder In a In-line Tandem Arrangement: With Planar Shear Flow in 'The International Conference on Dynamical Systems	Jadavpur University, Kolkata	National	11-14 January 2012
30	G. Venkiteswaran	Stratified Monte Carlo Integration and Applications in 10th International	The University of New South Wales, Sydney,	International	11 February 2012 to 17 February 2012.



		Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing	Australia		
31	Javid Ali	Strict Common Fixed Point Theorems for Hybrid Mappings via altering distances and applications in <u>International Conference on Differential Geometry, Functional Analysis and Applications</u>	Jamia Millia Islamia (A Central Univ.), New Delhi, India	National	Sept 08-10, 2012.
32	Javid Ali	Delivered a contributed talk entitled <u>Common Fixed Point Theorems via δ-distances with an Application in International Conference on Theory, Methods and Applications of Nonlinear Equations</u>	Texas A&M University, Kingsville, TX, USA	International	Dec. 17-21, 2012.
33	Lajja	Presented a paper <u>L-Stable Derivative Free Error Corrected Trapezoidal Rule for Burgers Equation</u> in <u>National Conference on Modeling, Computational Fluid Dynamics & Operations Research</u>	Department of Mathematics BITS Pilani, Rajasthan	National	February 4-5, 2012.
34	Padma Murali	Modeling the Dynamics of Amyloid Formation of Islet Beta Cells under Therapeutic Interventions and its role in discovery of novel target for drug action in <u>International Conference on Mathematical and Theoretical Biology</u>	The society for Mathematical Biology and Indian Institute of Science Education and Research, Pune in Pune, India	National	January 23-27, 2012
35	Pankaj Biswas :	<u>Least-squares spectral element methods for parabolic problems using parallel computers in International Conference on Applied Mathematics 2012: Modeling, Analysis, and Computation</u>	City University of Hong Kong, Hong Kong	International	May 28 - June 1, 2012.



36	P. H. Keskar	Algebra and Algebraic Geometry conference	Purdue University, U.S.A.,	International	5-8 July 2012.
37	Rajesh Bhatt and Dilip K Maiti	Aerodynamic Characteristics : Square Cylinder and Eddy-Promoting Rectangular Cylinder near wall in _National conference on Modeling, Computational Fluid Dynamics & Operations Research	BITS Pilani Rajasthan.	National	Feb 4-5, 2012,
38	Rajesh Bhatt and Dilip K Maiti	Effect of Inter Cylinder spacing on the vortex shedding suppression of flow past inline tandem cylinders near a wall in 57th congress	ISTAM (Indian Society of Theoretical Applied mechanics) and Defense Institute of Advanced Technology, Pune.	National	December 17-20, 2012
39	Rakhee	Analysis of G-Queue with Unreliable Server in the _National conference on Industrial Mathematics and soft Computing-2012	Department of Mathematics, School of Applied Sciences, KIIT University, Bhubaneswar	National	May 26-27, 2012.
40	Rakhee	Evaluation of Blocking Probabilities for Multiple Queue Model in Microcellular Networks with Subrating in the _International conference on Frontiers of Statistics and its Applications'	Pondicherry University, Puducherry	National	21-23 December 2012
41	Shashi	Seventh International Conference on Bio-Inspired Computing: Theories and Application, 2012 (BIC-TA 2012)'	ABV-Indian Institute of Information Technology and Management Gwalior	National	December 14 - 16, 2012
42	Shivi Agarwal and Shiv Prasad Yadav	—Fuzzy Slack Based Measure (SBM) of Data Envelopment Analysis in _International conference on optimization modelling and applications (OPTIMA-2012)'	University of Delhi, Delhi	National	November 29-December 1-2012.



43	Shivi Agarwal and AK Pani	Efficiency of Public Transport Sector of India by Neural Network Approach in 'International conference on Frontiers of Statistics and its applications'	University of Pondicherry, Puducherry	National	December 21-December 23-2012.
47	Atasi Patra	Dynamics of a Renewable Resource Model under Optimal Harvesting, 100th Indian Science Congress,	Calcutta University, Kolkata	National	January 3-7, 2013
48	Atasi Patra	Modeling the Dynamics of a Renewable Resource under Harvesting with Taxation as a control variable, International Conference on Mathematical Modeling and Computer Simulation with Applications, Department of Mathematics and Statistics	Indian Institute of Technology, Kanpur	National	31 Dec 2013 - 2 Jan, 2014
49	C. B. Gupta	Chaired technical session on 23 Feb. 2013, and Convener, Technical committee, National Workshop on Modeling and Computation	BITS, Pilani	National	
50	C. B. Gupta	Chief guest at valedictory function on 24 Feb. 2012, International Conference on Technology Innovation through Modern Engineering Science, Department of Applied Science	IET Alwar,	National	23-24 February, 2013
51	C. B. Gupta; With Neeraj Kumar, S R Singh and Rachna Kumari;	Two ware house Inventory Model With Multivariate Demand and K-Release Rule, Presented in First International conference on computational Intelligence: Modeling, Techniques and Application (CIMTA 2013)	Department of Computer Science and engineering, University of Kalyani	National	27-28 Sep. 2013.
52	C. B. Gupta	Role of Sterilization in family planning program, International conference on Technology Innovation through Modern Engineering science	IET Alwar	National	24.2.2013



53	Chandra Shekhar	Presented a paper entitled 'Machine repair problem with controlled arrival of failed machines' in national conference on Mathematical Modelling and Application in Science and Engineering (MMASE 2013)	Department of Mathematics, National Institute of Technology, Patna (India)	National	March 09-10, 2013.
54	Chandra Shekhar	Presented a paper entitled 'Fuzzy analysis of machine repair problem with switching failure and reboot' in international conference on Mathematical techniques in engineering applications (ICMTEA-2013)	Department of Mathematics, Graphic Era University, Dehra Dun (India)	National	October 24-25, 2013
55	D. K. Maiti	Numerical Study on Suppression of Vortex Shedding from Square Cylinder by Offsetting Rectangular Cylinder Near Plane, 100th Indian Science Congress	Calcutta University, Kolkata	National	January 3-7, 2013
56	D. K. Maiti	Shear flow past two square cylinders in staggered arrangement near a wall, 58th CONGRESS of Indian Society of Theoretical and Applied Mechanics at Engineering and Science University (BESU)	Shibpur, Howrah	National	December 18-21, 2013
57	Javid Ali	"Coincidence and common fixed points of nonlinear mappings in Menger spaces" in "International Conference on Applied Analysis & Math. Modeling"	Yildiz Technical University, Istanbul, Turkey	International	June 02-05, 2013
58	Javid Ali	Coincidence and common fixed points of non-self mappings and an application" in National Conf. on Role of Mathematics in Advancement of Science & Technology"	BSNV PG College, Lucknow	National	Oct 18-20, 2013
59	Rajiv Kumar	Presented a paper on "Multiplicative perturbation of generators of semigroups" in , International Conference	Babasaheb Bhimrao Ambedkar University (A	National	July 01-03, 2013.



		on "Mathematical Modeling and Numerical Simulation	Central University) Lucknow		
60	Rajesh Bhatt	Presented a paper "Numerical Study on Shear flow past Square cylinder in presence of in-line upstream rectangular cylinder near a wall" in International Conference on Mathematical Modeling and Computer Simulation with Applications at the department of Mathematics and Statistics,	Indian Institute of Technology Kanpur	National	December 31, 2013- January 02, 2014.
61	Rakhee	"Performance Analysis of Cellular Mobile Radio System Based on Prioritized Channel Assignment", in the International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2013)	Yidiz Technical University, Istanbul, Turkey and Putra University, Malaysia	International	2-5 June 2013.
62	Rakhee;	An analysis of channel assignment scheme for cellular mobile Radio network" in the International: Conference on Operations Research for Data Analytics and Decision Analysis	University of Kashmir, Srinagar	National	21-23, October 2013.
63	Shivi Agarwal;	"Fuzzy Slack Based Measure (SBM) of Data Envelopment Analysis: A Possibility Approach", 3rd International Conference on Soft Computing for Problem Solving (SocPros-2013)	Greater Noida Extension Centre of IIT Roorkee	National	December 26-28, 2013.
64	Shivi Agarwal	"Fuzzy Data Envelopment Analysis Model: A Possibility Approach" International Conference on Operations Research for Data Analytic and Decision Analysis (ICORDADA-2013)	University of Kashmir, Srinagar	National	October 19-23, 2013.



65	Shivi Agarwal	"Data Envelopment Analysis with Fuzzy Data", International Conference on Applied Analysis and Mathematical Modeling (ICAAMM-2013)	Yildiz Technical University, Istanbul, Turkey	International	June 02-05, 2013.
66	Shivi Agarwal and Shiv Prasad Yadav	"Fuzzy BCC Data Envelopment Analysis Model", National Conference on Recent Trends in Operations Research (NCRTOR 2013)	ASET, New Delhi	National	April 11-12, 2013.
67	Pranshu Gupta, Shivi Agarwal and Shiv Prasad Yadav;	"Scale Efficiency by Fuzzy Data Envelopment Analysis Model", National Conference on Recent Trends in Operations Research (NCRTOR 2013)	ASET, New Delhi,	National	April 11-12, 2013.
68	Trilok Mathur	"Sufficient Conditions For Generalized Sakaguchi Type Functions of Order β " in International Conference "Complex Analysis and Related Topics	Lviv, UKRAINE	International	September 23-28, 2013
69	CB Gupta, Vipin Kumar	An EOQ model with general ramp type demand rate constant deterioration rate and partial backlogging, Presented in 25th Annual Conference of Rajasthan Ganita parishad and National Seminar on Applications of Computer in Mathematical Research	SML College, Jhunjhunu	National	1-2 march 2014.
70	Shekhar, C., N	Policy for a machine repair problem with mixed standbys, permanent and additional repairmen working at control rates, in national conference on Advances in Mathematical Sciences & their Applications	Hindu Girls College, Sonipat	National	28-30, 2014
71	Shekhar C.	Reliability analysis of K-out of N system with controllable rates, common cause failure, in international conference on Emerging Trends in Global Management Practices- An interdisciplinary approach	Symboisis Centre for Management Studies, Noida	National	March 07-08, 2014



72	Shekhar, C.	Reliability analysis of K-out-of-M machining system with switching failure of mixed standbys and reboot delay, in national conference on Recent Trends & Development in Operations Research	Birla Institute of Technology and Science, Pilani	National	February 22-23, 2014.
73	Jain, M., Shekhar C. and Kumari, R.	Reliability analysis of K-out of N system with controllable rates, common cause failure and warm standbys' e-proceedings of the international conference on Emerging Trends in Global Management Practices-An interdisciplinary approach	Symboisis centre for Management Studies, Noida,	National	7-8 March, 2014
74	Maiti, D.K.,	Vortex shedding suppression from a square cylinder due to offsetting rectangular cylinder towards wall. ISMMACS,	IIT Kanpur	National	December 31st 2013 to January 2nd, 2014
75	Nidhi Chaudhary , Padma Murali and Rajiv Kumar	Dynamics of formation of foam cells from LDL cholesterol and the inhibitory effects of therapeutic agents like statins, at International Conference on Mathematical Modeling and Computer Simulation	IIT, Madras	National	Dec. 8 – Dec. 10, 2014.
76	Rakhee,	Analysis of an infinite capacity single server discrete time queue with second optional service and server breakdown, joint meeting of the gor and the euro working group on stochastic modelling (Stochmod 14)	University of Mannheim, Germany	International	29 June-02 July, 2014.
77	Shivi Agarwal	Scale efficiency of public transport sector of India, National Conference on Recent Trends and Developments in Operations Research	BITS Pilani, Pilani Campus, Pilani	National	February 22-23, 2014.
78	Shivi Agarwal	"SBM data envelopment analysis in fuzzy environment", International Conference on Mathematics and Engineering Sciences	Chitkara University, HP	National	March 20-22, 2014



79	Shivi Agarwal	Fuzzy data envelopment analysis model with credibility theory, International Conference on Operational Research,	S.V. University, Tirupati	National	December 01-03, 2014
80	Trilok Mathur, Fekete-Szegö,	Inequality for certain subclasses of analytic and bi-univalent functions, International Conference on Mathematics and Engineering Sciences	Chitkara University, H.P.,	National	20-22 March 2014
81	Sharma B K and Mishra A.	all effect on MHD mixed convection flow in a vertical rotating channel in the presence of inclined magnetic field, in "National Conference on Recent Trends and Developments in Operations Research (NCRTDOR 2014)	BITS Pilani	National	February 22-23, 2014

(c) Monograph

01	Savita Kumari, Seema Verma, Rakhee Kulshrestha	"Performance Evaluation of Indexing Techniques for Wireless Environment" LAMBERT Academic Publishing, Germany, February 2012
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(d) Chapters in Books

01	Seema Verma, Rakhee and Savita Kumari:	Data broadcast management in wireless communication: An emerging research area, Applied Signal and Image Processing: Multidisciplinary Advancements. IGI Publishing, 2011. ReleaseDate: March,2011; DOI: 10.4018/978-1-60960-477-6; ISBN13: 9781609604776; ISBN10: 1609604776; EISBN13: 9781609604783.
02	Trilok Mathur . Co-authored by Dr. A.K. Goyal, Dr. Sunil Saxena and Dr. Vimlesh Soni; Edited by Prof. S.P.Goyal)	1. Bezganita (Algebra), Publisher: Vardhman Mahaveer Open University, Kota, 2010. (Co-authored by Dr. K.N.Singh, Dr. Pares Vyas, Dr. Subhash Yadav and Mr. Rakesh Pandey; Edited by Prof. D.S.Chauhan).
03	Trilok Mathur (Co-authored by Dr. A.K. Goyal, Dr. Sunil Saxena and Dr. Vimlesh Soni; Edited by Prof. S.P.Goyal)	2. Sammishra Vishleshan (Complex Analysis), Publisher: Vardhman Mahaveer Open University, Kota, 2010
04	Trilok Mathur (Co- authored by Mr. Rakesh Pandey, Dr. Pawan Agarwal and Dr. Vimlesh Soni; Edited by Dr. K.N.Singh)	3. Real Analysis and Topology, Publisher: Vardhman Mahaveer Open University, Kota, 2011



05	Jitender Kumar, K. V. Krishna.	Radicals and ideals of affine near-semirings over brandt semigroups. In <i>P. G. Romeo, J. C. Meakin, and A. R. Rajan, editors, Semigroups, Algebras and Operator Theory, volume 142 of Springer Proceedings in Mathematics & Statistics, Springer India. 123-133.</i>
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(e) Books with ISBN No.

01	Gupta, Kantesh, Garg, Atul, Shekhawat, K.S., Shekhar Chandra, Goswamy, Pranay (2010)	'Differential Equations, Calculus of Variations and Special Functions', a text book of Vardhaman Mahaveer Open University, Kota for MA/MSc MT-03 (ISBN 13/978-81-8496-247-5).
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23. Details of patents and income generated : NIL

24. Areas of consultancy and income generated :NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

(1) Dr. Suresh Kumar, Selected as visiting Associate of Inter University Center for Astronomy and Astrophysics (IUCAA), Pune –India for two successive terms (2011-2014, 2014-2017)

(2) Dr. D. K. Maiti visited (a) Academy of Mathematics and Systems Science, Chinese Academy of Science, Beijing and State Key Laboratory of Railway Vehicle Thermal Engineering, Lanzhou Jiaotong University under International Exchange Programme of INSA, Dec. 2012

(b) Academy of Mathematics and Systems Science, Chinese Academy of Science, Beijing under Chinese Academy of science visiting research fellow during. May to July, 2014

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

Member of National Committees:

(i) **Prof. C. B. Gupta**

- Governing Body Kedarnath Agarwal Institute of Management, Charkhi Dadri, Haryana.
- Board of Post Graduate Studies, Department of Statistics and Operations Research, KU Kurukshetra.
- Advisory Committee for DST Radio Math's Project in CRS Alwar Ki Awaaz.
- Expert member in Statistics, UPSC, New Delhi.
- AICTE Vocation Curriculum Expert committee in Applied Science and Humanities

(ii) **Trilok Mathur:**

- Appointed as Observer, Central Board of Secondary Education-All India Pre-Medical Test-2014 (A national level examination).

Member of International Committees:



- (i) Prof. C. B. Gupta:
- International Association of Engineers, Hong Kong.

Editorial Board:

(i) Prof. C. B. Gupta

- Member of Chief Technical Advisory Board for international journal of soft computing and Engineering.
- Chief Editor of first international conference in Operations Research and Statistics held during April 2011 at Malaysia.
- Chief Editor of second international conference in Operations Research and Statistics held at Bali, Indonesia on 7-8 May 2012.
- Chief Editor of Third international conference in Operations Research and Statistics held at Singapore on 3-4 May 2013
- Associate editor for the journal of Mathematics, Statistics and Operations research published from Singapore.
- Member on editorial Board on International Transactions in Applied Science.
- Member on editorial Board on International Journal of Applied Mathematical Modelling and Simulation.
- Member on editorial Board on International transactions on Mathematical and Computer Science.
- Member on editorial board of Ganita Sandesh.
- Member Chief Technical Advisory Board International journal of Inventive Engineering and Science.
- Member Chief Technical Advisory Board International journal of Engineering and Advanced Technology.
- Member editorial board International Journal of Information Technology and Application.

(ii) Bhupendra Kumar Sharma: Member of Editorial Board/Advisor Board:

- Open Journal of Fluid Dynamics (OJFD)
- Scientific Journals International ,USA
- American Journal of Fluid Dynamics, USA
- Journal of Mathematics, USA
- Exceling Tech Publisher, UK
- American Academic & Scholarly Research Centre (AASRC), USA
- International Journal of Scientific & Engineering Research, France
- Global Journal of Theoretical and Applied Mathematics Sciences.
- World Research Journal of Engineering and Technology

(iii) Trilok Mathur

- Member of Editorial Board of International Bulletin of Mathematics Research (IBMR) and Guest editor of Volume 2 , Issue 2



27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

- (i) ITW(Intensive Teaching Workshop) is organized for newly appointed faculty members by some senior faculty members(5-6 no) as organizing faculty members.
- (ii) One senior faculty is appointed as a mentor for a newly joined faculty member preferably from same Department to enhance teaching and to know the teaching practices(evaluation, managing classes etc.) of BITS .
- (iii) BITS Pilani provides Research Initiation Grants and Extended Research Grants to newly joined faculties to start and enhance their research abilities.
- (iv) The university provides Special Causal Leave and funding of Rs. 1 lakh per year as a Reimbursable Contingency Allowance to attend and present papers in National /International Conferences held India and abroad. Contingency Allowance of Rs. 2 lakh for 2 years can be clubbed together.
- (v) The university has the provision of sending the faculties for Industry-Immersion and Abroad-University-Immersion programs to enhance their knowledge in various emerging fields, for which full funding is provided.
- (vi) Organized lectures by experts on different new topics.

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects **100%**
- percentage of students doing projects in collaboration with other universities /industry / institute : **100%**

29. Awards / recognitions received at the national and international level by Faculty Doctoral / post doctoral fellows /Students

(i). C.B.Gupta:

- Listed in Marquis' who is who (USA) 2011 and 2013.
- Awarded Shiksha Rattan Puraskar 2011 by India International Friendship Society New Delhi.
- Awarded Best Citizens Award 2011 International Publishing house, New Delhi.
- Mother Teresa Award By Integrated Council for Socio-Economic Progress, Thrissur, Kerala, 2013

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

Name of the Organizing Secretary	Name of the Convener	Name of the Co-convener	Funding Agency	Conference / Workshop/ Symposium	Duration
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Prof. C. B. Gupta	Prof. B. Dubey	Dr. Dilip K Maiti	UGC-SAP (DRS I)	National Conference on "Modeling, Computational Fluid Dynamics and Operations Research"	4th to 5th February, 2012
Dr. Dilip K Maiti	Prof. B. Dubey	Dr. Bhupendra K Sharma	UGC-SAP (DRS I)	National Workshop on "Modeling and Computation"	23rd to 24th February, 2013
Dr. Chandra Shekhar	Prof. C. B. Gupta		UGC-SAP (DRS I)	National Conference on "Recent Trends and Developments in Operations Research"	22nd to 23rd February, 2014
Dr. Amit K. Verma Dr. Devendra Kumar Dr. Sangita Yadav	Dr. Trilok Mathur	Dr. Suresh Kumar	Partially supported by DST Rajasthan	National workshop on "LaTeX and MATLAB for Beginners"	24th to 25th December, 2014

31. Code of ethics of research followed by the Department.

The department follows the code of ethics specified by the Institute.

32. a) Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
First Degree					
2010-2011	14662	42	13	100	100
2011-2012	12880	45	11	100	100
2012-2013	15174	43	07	100	100
2013-2014	15120	44	06	100	100
2014-2015	18717	40	12	100	100
PhD					
2010-2011	Data not maintained	2	1		
2011-2012		1	1		
2012-2013	8	1	1		
2013-2014	17	2	1		
2014-2015	27	1	2		



34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. :

Most of the students of our department got placed in reputed companies like Google , Microsoft etc., some of them have also cleared exams like GATE, NET and other complete examination, but department does not maintain such data

35. Student progression

Student progression		Percentage against enrolled
UG to PG		NA
PG to M.Phil.		NA
PG to Ph.D.		NA
Ph.D. to Post-Doctoral		0
Employed		
?	Campus selection	87.25
?	Other than campus recruitment	
Entrepreneurs		Data is not mentioned by Department

36. Diversity of staff

Percentage of faculty who are graduates (Highest Degree)	
of the same university	5% (6.25%)
from other universities within the State	10.5% (12.5%)
from universities from other States	73.6% (75%)
from universities outside the country	10.5% (6.25%)

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period - Nil

38. Present details of departmental infrastructural facilities with regard to

a. Library : We have a central library facility, where we have following:

Mathematics Department			
S/N			
1	No of books for Maths	9977	
2	No of Print journals for Maths	12	



3	e-Journals-Peer (tentative)	Reviewed	767	
4	No of thesis of Maths		116	
5	No of e-books of Maths		2359	24/7 e-books- available for BITS faculty & WILP & Elsevier

- b. Internet facilities for staff and students : Yes , High speed internet facilities
- c. Students' laboratories : NA
- d. Research laboratories : Computational Lab in the department

39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university : Preeti Dubey, Mandeep Singh, Sachin Kumar, Nidhi Chaudhary, Priyanka Kumari, bhavya Tripathi, Srikanth Varsheny, Swathi Sharma and Amit Kumar
- from other institutions/universities:Ather Aziz Raina. Dept. Of Mathematical Sciences, Baba Ghulam Shah Badshah University

Doctoral students

Dr. Atasi Patra Maiti	Completed
Dr. Rajesh Bhatt	Completed

40. Number of post graduate students getting financial assistance from the university. : 08

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.: No

42. Does the department obtain feedback from

- i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, and the teaching faculty in particular in understanding their requirements, keeping the courses and course contents up to the mark and also fulfilling their learning-teaching demands.

- ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Student-Faculty-Council(FSC) is setup by each department as per the guidelines of ID (Instruction division). It comprises students different year and, all categories (boys and



girls, different programmes, first degree, higher degree etc) and faculty members (i.e. Professor, Associate Prof., Assistant Prof. and Lectures). The SFCs of all departments collect feedback from the students and share those with the individual faculties to improve the teaching quality. It also feels that students' response of students helps the institute in general and the teaching faculty in particular in understanding their requirements, keeping the courses and course contents up to the mark and also fulfilling their learning-teaching demands. Therefore a feedback system is devised to collect the students' constructive reactions/ suggestions on courses, course contents and handling of the courses.

iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes, Department obtains feedback to understand the requirement of new courses, contents of the courses, text books according to changing the global educational system/ requirements of the industries etc.. Based on the feedback, department examines and incorporate the suggestions accordingly.

43. List the distinguished alumni of the department (maximum 10):

S.No.	Name	Designation	Affiliation	Degree/ Year from BITS Pilani
1	Jugal Kishore Verma	Professor,	Department of Mathematics, IIT Bombay	M.Sc. Mathematics in 1981
2	Hira Lal Janwa	Professor	Department of Mathematics, University of Puerto Rico	M.Sc (Mathematics) and B.E. (EEE), 1981
3	Vijay Natarajan	Associate Professor	Department of Computer Science, IISc, Bangalore	M. Sc. (Mathematics) and B.E. (Computer Science), 1999
4	Govindan Rang Rajan	Professor	Department of Mathematics, Indian Institute of Science	M.Sc. /1983
5	Srikanth	Professor	TIFR , Center of Applied Mathematics	Ph.D.
6	Kunal Lad	Graduate Student	University of TEXAS, Austin	M.Sc. Maths, (Dual C.S.) /2013
7	Dhanaraja Kasinathan	Senior Research Scientist	United Technology Research center, Ireland	M.Sc.(Dual E.E.) / 2005, Ph.D. (Maths), University of Waterloo
8	Suvidha Kancharla	Engineer	Microsoft	M.Sc. (Dual C.S.)/2009, M.S. C.S. Purdue University /2014



9	Sameera Gupta	Software development Engineer	Flipcart , new Delhi	M.Sc. Maths(Dual C.S.) / 2012
10	Prashant Ganesh	Product Consultant	Google, Singapore	M.Sc. Maths(Dual Information System) /2005

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

S. No.	Title of the talk	Speaker/Affiliation	Date
1	Application of mathematics to the problems of Industry and medicine	Prof. G. C. Sharma, B.R. Ambedkar University, Agra	14.03.2011
2	Inventory modelling under trade credit	Prof. C. K. Jaggi, University of Delhi, Delhi	17.03.2011
3	Wave of chaos in a spatial model system: Generating realistic pattern of patchiness in Plankton –Fish dynamics	Prof. R. K. Upadhyay, ISM, Dhanbad	24.03.2011
4	Monotone operators and its applications	Prof. M. C. Joshi, IIT Bombay	22.11.2011
5	Perspective of industrial mathematics	Prof. M. C. Joshi, IIT Bombay	22.11.2011
6	Plane strain deformation analysis of an elastic solid	Prof. N. R. Garg, MD Univ. Rohtak	26.03.2012
7	Evolution and asymptotic behaviour of non linear waves in compressible flows	Prof. V. D. Sharma, IIT Bombay	23.04.2012
8	Are You Connected? Detecting Connectivity Patterns in Networks	Prof. Govindan Rangarajan, Indian Institute of Science Bangalore 560 012	21.03.2013
9	Polynomial Equations and Eigen values	Prof. J.K. Verma Indian Institute Technology Bombay.	10.03.2014
10	Godunov-type Finite Volume Approximation for Formation of Sandpile on a Finite Table.	Prof. Veerappa Gowda TIFR Centre for Applicable Mathematics, Bangalore.	24.03.2014
11	A Spline Collocation Method for Pricing Options Under Jump Diffusion Model	Prof. M. K. Kadalbajoo Indian Institute of Technology Kanpur	05.01.2015

45. List the teaching methods adopted by the faculty for different programmes.

1. Blackboard
2. Power point presentation
3. Cross campus teleconference classes
4. Online recorded audio – video lecturers



46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

1. Student faculty council Meetings,
2. Continuous feedback from students,
3. Review of curriculum by subject experts, and
4. Feedback from placement managers

47. Highlight the participation of students and faculty in extension activities

- Contraction to computational laboratory under UGC-SAP
- Extension of above laboratory under DST-FIST Grant

48. Give details of “beyond syllabus scholarly activities” of the department.

- Participation in different types of Projects in APPOGE.
- Conducting different games between Faculty and students to make friendly environment and strong bonding.
- “Gambling Mathematic” conducting by Mathematics association.
- Teacher’s day celebration by first degree and Ph D students.
- Mathematics association publishes annual magazine “To infinity and beyond”.
- Mathematics association organizes Sudoku (Problem solving skills in limited time).

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. : No.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Please refer to Q No. 32 and Q. No. 44

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength

- All the faculties are PhD from reputed Institute and Versatile in the areas in mathematics
- Interdisciplinary research and contribution in WILP and PS
- 4 basic foundation course Math I, II, III and Probability and Statistics
- Department supported by DST FIST and UGC-SAP and project in Dept. from external agency
- Project in Dept form external agency
- 90% placement of B4 students
- Conduction of workshop/ Conferences, teamwork

Weakness



- Getting quality faculty is big challenge
- Procuring or hiring a good Phd candidate is also a challenge

Challenges

- Attraction of PhD students and faculty
- Funding from external agencies
- Retention of faculties
- Motivation of UG students for research and getting more research scholars

Opportunities

- Good working environment
- Library + Computational lab
- More research scholars
- Funding from external agency

52. Future plans of the department.

- Minor and M Phil on Industrial mathematics
- Attracting more research scholars for PhD
- Conduction of International/National conferences
- New Programmes with collaboration with other departments

53. Any other information regarding your department which you would like to include.

1. B. Dubey, Modeling the optimal utilization of a renewable resource, at Beant College of Engineering and Technology, Gurdaspur, Panjab, in a National Conference on “Recent Advancements in Mathematics” during February 01- 02, 2014.
2. B. Dubey, Mathematical models on a renewable resource, at Vivekananda Global University, Jaipur, in a National Conference on “Mathematical Techniques in Engineering Applications” during April 04-05, 2014.
3. B. Dubey, Role of mathematical modelling in resource management, in Indo-French Workshop on “Statistic and Mathematical Biology” held at Indo-French Centre for Applied Mathematics, Indian Institute of Science, Bangalore, during July 28-31, 2014.
4. CB Gupta, Simulation and its Applications, at IET Alwar in AICTE Sponsored FDP on Simulation of Mathematical Applications in recent Technology, during 31-03-2014.
5. CB Gupta, Simulation and its Applications, at Department of basic and applied Sciences, CP University, Hamirpur, HP in National Conference on Advances in basic and applied sciences, during 10-05-2014.
6. CB Gupta, Applications of Mathematics, at SML(PG) College, Jhunjhunu, during 18-11-2014.



7. CB Gupta, Mathematics and Ramanujan, at SML(PG) College, Jhunjhunu on 22-12-2014.
8. Amit Kumar Verma, Devender Kumar, Rakhee, Shivi Agarwal, Sangita Yadav, Suresh Kumar and Trilok Mathur: delivered lectures in 'National Workshop on LaTeX and MATLAB for Beginners' during 24-28, December, 2014 in BITS-Pilani at Pilani.
9. Tiwari: DST Inspire lecture on Derivatives: Properties and Applications at IET Sitapur on 30th July 2014.
10. Trilok Mathur: Delivered an invited lecture on "Introduction of Fractional Calculus and its Applications" in COMPUTATIA-IV at VIT, Jaipur on 25 November, 2014.
11. Trilok Mathur: Delivered an invited lecture in "Mathematics Week" at Tagore International School, Jaipur on 15 December, 2014.
12. A. K. Verma; DST Inspire lecture on on Calculus via Mathematica in SRIMT BKT Lucknow on 14th July 2013.
13. A. K. Verma; A talk on "Nonlinear Singular Differential Equations Arising in Real Life" is delivered in front of PAC in a workshop organized by DST in IIT Chennai on 18th November 2013.
14. A. Tiwari; Delivered an invited lecture on Oscillation theory of Differential equations at Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad during Feb 26-27,2013.
15. B. Dubey; Optimal harvesting of a renewable resource, IIT Patna, in a Workshop "Mathematical Epidemiology and Differential Equations" during July 08-13, 2013.
16. B. Dubey; Optimal management of a renewable resource utilized by a population with taxation as a control variable, IIT Patna, in a Workshop on "Mathematica Epidemiology and Differential Equations" during July 08-13, 2013.
17. B. Dubey; Optimal management of a natural resource: role of mathematical modeling, South Asian University, New Delhi, 28.08.2013.
18. C. B. Gupta; Chief Guest and Key note Speaker, National workshop on Computational methods in Engineering and Mathematics using MATLAB and Mathematica, Department of Mathematics, Marudhar Engineering College, Bikaner, 19-20 April, 2013
19. C. B. Gupta; Applications of Mathematics, Invited talk, Department of Mathematics, RPS (PG)College, Mahendra Garh(Haryana), 30.09.2013



20. C. B. Gupta; Applications of Simulation, Invited talk, Manipal university, Jaipur, 07.11.2013
21. C. B. Gupta; Simulation and its application, Invited Talk in Refresher course in Mathematics and Statistics, GJU of S&T, Hisar, 30.12.2013
22. G. Venkiteswaran; Quasi-Monte Carlo Methods, Invited talk in Madras Institute of Technology/18/12/2013.
23. Javid Ali; delivered an invited talk entitled "On various concepts of fuzzy metrics and applications" in National Workshop on "THE FUZZY SETS & FUZZY LOGIC- FUZZY-13" held at Govt. E. Raghvendra Rao Science PG College, Bilaspur (C.G.) during Feb 01-02, 2013.
24. Rajiv Kumar; gave a course of lectures on "Analysis" in a Refresher Course in Mathematics and Statistics at Academic Staff College, Guru Jambheshwar University of Science & Technology, Hisar from Dec 11, 2013 to Dec 31, 2013.
25. Trilok Mathur; gave an invited talk in Workshop on MATLAB, at IIS University, Jaipur from 17-18 March, 2013.
26. Amit Kumar Verma delivered a talk on —Learning Calculus with Mathematica in BBVP, Pilani on 16 August 2012 as part of a Mathematics Week celebration in BBVP, Pilani.
27. C. B. Gupta delivered a talk on —Simulation and its application in Queueing Theory in National Conference on Numerical and Mathematical Modeling in Electrical Engg. And Applied Sciences' at Poornima college of Engg. Jaipur on 21.01.2012.
28. C. B. Gupta delivered a talk on —Application of Mathematics to Sciences in National Seminar on Mathematical and Physical Sciences' at D. N. (PG) College, Meerut, U.P. on 17 March 2012.
29. C. B. Gupta delivered an invited talk titled —A lecture on Probability Distributions at JVMGRR (PG) College, Charkhi Dadri (Haryana) on 20.09.2012.
30. C. B. Gupta delivered an invited talk on —How to teach? at LCRT College of Education, Panipat (Haryana) on 21.11.2012.
31. Dilip Kumar Maiti delivered a talk on —Numerical Study on Vortex Shedding and Aerodynamic Characteristics: Square Cylinder and In-line Eddy Promoters Near Wall at IISER, Kolkata in Jan.2012.
32. Dilip Kumar Maiti delivered a talk on —Computational Investigation on Vortex Shedding and Aerodynamic Characteristics of Square Cylinder Due to Eddy Promoters Near Wall at VU,



Midnapore, WB in Jan. 2012.

33. Dilip Kumar Maiti delivered a talk on —Computational Study on Interactions of Vortices of a Square Cylinder and a Rectangular Vortex Generator Near to Plane at ICMSEC, Academy of Mathematics and Systems Science, CAS, Beijing, CHINA in Dec.7 2012
34. Dilip Kumar Maiti delivered a talk on —Computational Study on Interactions of Vortices of a Square Cylinder and a Rectangular Vortex Generator Near to Plane at Institute of Applied Mathematics and Computational Mathematics, Beijing, China on Dec. 14, 2012.
35. Dilip Kumar Maiti delivered a talk on —Vortex Shedding and Aerodynamic Characteristics on Square Cylinder Due to Secondary Flow Generated by Rectangular Eddy-Promoter Near Plane at Key Laboratory of Railway Vehicle Thermal Engineering, Lanzhou Jiaotong University, CHINA on December 19, 2012.
36. G. Venkiteswaran delivered a talk on —Networking in Unix Environment at A. M. Jain College, Chennai on 22nd of February 2012.
37. P.H. Keskar delivered a talk on —Use of birational transformations in solving certain functional equations , in ‘Algebra and Algebraic Geometry conference’, Purdue University, U.S.A., on 5th July 2012.
38. Shashi delivered a short term course —Recent Advances In Genetic Algorithms and their Applications in Engineering Design held at Indian Institute of Technology Roorkee during 25th June 2012 – 29th June 2012.
39. Trilok Mathur presented an Invited Talk on —Introduction to Fractional Calculus and its Applications to Fractional Order Dynamical Systems in Control Theory in DST sponsored National Conference on ‘Innovations in Mathematics and their Applications in Power Systems’ (IMSAPS), held at RCEW, Jaipur on 21-22 September, 2012.
40. C.B. Gupta: Importance of Mathematics’, in Apaji Institute of Mathematical Sciences, Banasthali University, Banasthali on 09.01.2011.
41. C.B. Gupta: Operations Research’, in National Seminar on Recent Trends in Advancement of mathematical and Physical Sciences at DN (PGO College, Meerut on 05.02.2011.
42. C.B. Gupta: Importance of Inventory Modelling in Present Era’, in National workshop onInventory management at Centre for Mathematical sciences, Banasthali University Banasthali, on 06.03.2011.



43. C.B. Gupta: Applications of simulation Techniques in Queuing theory and Inventory', in UGC sponsored national workshop on Challenges before applied mathematicians: fluid Dynamics and Optimization techniques at Department of Mathematics, University of Rajasthan, Jaipur on 11.03.2011.
44. C.B. Gupta: Set Theory', in BKBIET, Pilani on 28.03.2011.
45. C.B. Gupta: Application of Operations Research', in Institute of Engineering and Technology, Alwar on 15.04.2011.
46. C.B. Gupta: Importance of Mathematics', in Workshop on Mathematics at IET, Alwar on 15.10.2011.
47. C.B. Gupta: Operations Research: An Overview', in International Conference on Global Technology: Impact on Industry and Society at IET, Alwar on 15.10.2011.
48. C.B. Gupta: Introduction to Statistics', in FDP Workshop on Tools and Techniques of Statistics and Simulation at BITS, Pilani on 29.09.2011.
49. Chandra Shekhar: Queueing Analysis of Two Servers Machine Repair System with Switching Failure of Warm Spares' in Annual Conference of Vijnana Parishad of India held in Shobhit University, Meerut on March 24-26, 2011.
50. B.Dubey: Behaviour of Linear and Non-linear Systems', in National Workshop on Linear and Nonlinear Systems held at Banasthali University, Rajasthan during December 15-19, 2011.
51. B.Dubey: Stability by Liapunov's Direct Method', in National Workshop on Linear and Nonlinear Systems held at Banasthali University, Rajasthan during December 15-19, 2011.
52. B.Dubey: Modeling the Dynamics of Interacting Biological Species', in National Workshop on Linear and Nonlinear Systems



Pilani Campus: Evaluative Report of the Department MECHANICAL ENGINEERING

1. **Name of the Department :** Mechanical Engineering
2. **Year of establishment of the Department:** 1946
3. **Is the Department part of a School/Faculty of the university?:**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

On Campus

Year	UG	PG
2010-2015	1. BE (Hon.) Mechanical Engineering 2. BE (Hon.) Manufacturing Engg.	1. ME (Mechanical Engineering) 2. ME (Design Engineering) 3. ME (Manufacturing systems Engg.)
	PhD	

Off Campus

Year	UG	PG
2010-2011	1. B.S. (Engineering Technology) 2. B.S. (Manufacturing Engineering)	1. M.S. (Manufacturing Management) 2. M.S. (Quality Management) 3. M.S. (Design Engineering)
2011-2012	1. B.S. (Engineering Technology) 2. B.S. (Manufacturing Engineering) 3. B.S. (Power Engineering)	1. M.S. (Manufacturing Management) 2. M.S. (Quality Management) 3. M.S. (Design Engineering)
2012-2013	1. B.S. (Engineering Technology) 2. B.S. (Manufacturing Engineering) 3. B.S. (Power Engineering) 4. B.S. (Engineering Design)	1. M.S. (Manufacturing Management) 2. M.S. (Design Engineering)
2013-2014	1. B.S. (Engineering Technology) 2. B.S. (Manufacturing Engineering) 3. B.Tech. (Manufacturing Technology)	1. M.S. (Manufacturing Management) 2. M.S. (Design Engineering) 3. M.S. (Quality Management) 4. M.S. (Automotive Engineering)
2014-2015	1. B.S. (Engineering Technology) 2. B.S. (Manufacturing Engineering) 3. B.S. (Power Engineering) 4. B.S. (Engineering Design)	1. M.S. (Manufacturing Management) 2. M.S. (Quality Management) 3. M.S. (Automotive Engineering)

5. **Interdisciplinary programmes and departments involved :** No
6. **Courses in collaboration with other universities, industries, foreign institutions, etc. :**
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.



7. Details of programmes discontinued, if any, with reasons: NA

8. Examination System: Semester and Choice Based Credit System

9. Participation of the department in the courses offered by other departments:

Faculty members of Mechanical Engineering are involved in teaching of courses offered by following departments:

Departments	Courses
Physics and Chemistry Department	Structure and Properties of Material
Mathematics Department	Operations Research Optimization
Management Department	Supply Chain Management Quantitative Techniques Operations Management
Electrical Electronics Engg. & Instrumentation Engg. Department	Introductions to MEMS Mechatronics and Automation

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors, Professors/Asst. Professors/others).

	Sanctioned	Filled (includes offer letters given)	Actual number
Sr. Professor/ Professor	Note:**	04	04
Associate Professors		04 + 01*	05
Assistant Professors		12 + 06*	18
Others		03 + 01*	04

*Off campus Faculty

Note**: The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ Students guided for the last 5 years
R.K.Mittal	Ph.D.	Senior Professor	Robotics	40	06
N.N.Sharma	Ph.D.	Professor	MEMS and Nano Systems	25	03 (03 ongoing)



Mani Sankar Dasgupta	Ph.D.	Professor	Design, Simulation	24	01 (02 ongoing)
Kuldip Singh Sangwan	Ph.D.	Professor	Manufacturing	23.5	03 (05 ongoing)
P. Srinivasan	Ph.D.	Associate Professor	Production Engineering	27	01
Arun Maity*	Ph.D.	Associate Professor	Project Management, Manufacturing Excellence	25	01
Bijay Kumar Rout	Ph.D.	Associate Professor	Quality Reliability & Operations Research and Robotics	23	01 (01 ongoing)
Abhijeet Digalwar	Ph.D.	Associate Professor	Manufacturing Engineering and Management	19	01 (01 ongoing)
Srikanta Routroy	Ph.D.	Associate Professor	Industrial Engineering and Management	15.5	01 (03 ongoing)
Manoj Kumar Soni	Ph.D.	Assistant Professor	Thermal Engineering	20	(04 ongoing)
Venkataraman P B*	M.S.	Assistant Professor	Operations Management, Decision Sciences, Technology Management	20	-
Sharad Shrivastava	Ph.D.	Assistant Professor	Biomedical Engg, Engineering Materials	13	(02 ongoing)
Ravi Inder Singh	Ph.D.	Assistant Professor	Thermal Engineering	12.2	(01 ongoing)
Ravi Shrikrishna Reosekar*	M.E.	Assistant Professor	Materials Management, Manufacturing Organization and Management	12	-
R P Mishra	Ph.D.	Assistant Professor	World Class Maintenance	10	(01 ongoing)
Pavan Kumar Potdar*	M.Tech.	Assistant Professor	Materials Management, Manufacturing Organization and Management	10	-
Naga Vamsi Krishna Jasti*	Ph.D.	Assistant Professor	Lean Manufacturing	10	-
Jitendra Singh Rathore	Ph.D.	Assistant Professor	Nano System and Fluidics	9	(01 ongoing)



Sachin Belgamwar	U Ph.D.	Assistant Professor	Materials Engineering and MEMS	9	(01 ongoing)
Amol Marathe	M. Ph.D.	Assistant Professor	Nonlinear vibrations	8.5	(01 ongoing)
Sudeep Kumar Pradhan*	Ph.D.	Assistant Professor	Supply chain Management, Operation Management	8	-
Palla Murali	Ph.D.	Assistant Professor	Solid Mechanics, Materials Science	7.5	(01 ongoing)
Arun Jalan	Ph.D.	Assistant Professor	Dynamics, Vibration	7	(01 ongoing)
Srinivas Kota	Ph.D.	Assistant Professor	Product Design, Life Cycle Assessment	6	(01 ongoing)
Tufan Chandra Bera	Ph.D.	Assistant Professor	Manufacturing	5.1	(01 ongoing)
Shyam Sunder Yadav	Ph.D.	Assistant Professor	Computational Fluid Dynamics	4	(01 ongoing)
Girish Kant	ME	Lecturer	Manufacturing Systems Engineering	13	-
Anil Jindal	Ph.D.	Lecturer	Manufacturing	10	-
Gajanand Gupta	ME	Lecturer	Manufacturing	4	-

*Off Campus Faculty

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

SI No	Name	Senior Visiting Fellows	Adjunct Faculty	Emeritus Professors
1	Uma Maheswari N	Yes		
2	B Rama Chandra Murthy	Yes		
3	Dr. Rajiv Gupta	Yes		

13. Percentage of classes taken by temporary faculty – programme-wise information:

Zero Percent as there is no temporary faculty in our department

14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)

Programme	Total No. of Students	No. of faculty Involved	Student teacher Ratio
B.E (Hon.) Mechanical Engineering	327	18	18.16:1
B.E(Hon.) Manufacturing Engineering	137	20	9.13:1



M.E. Mechanical	18	14	1.28:1
M.E. Design Engineering	26	10	2.60:1
M.E. Manufacturing systems Engineering	18	9	2.00:1
PhD	32	Students work with respective supervisors	

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

There are 04 Technical staff and 02 administrative staff to support the department.

16. Research thrust areas as recognized by major funding agencies:

- Manufacturing: Titanium Machining, Machining Parameter Optimization, Thin-walled Machining etc
- MEMS/Nano System: Design and Optimization of Bio-Sensors and CNT Technologies
- Robotics and Automation: Robust robot parameter Optimization, Compliant Mechanisms, Rehabilitation Robotics
- Thermal Systems: CO₂ based refrigeration, Numerical Modelling and Simulation of Rolling Process
- Non-Renewable Energy Systems: Solar heater, Solar based cooling systems
- Material Science and Machine Dynamics: Composites, Bio-composite, Sensor Network based Condition based Monitoring
- Flexible Manufacturing Systems: World class Manufacturing, Sustainable Manufacturing

17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Completed projects:

Sl. No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Establishment of National MEMS Design Center	N.N Sharma	National Program on Micro and Smart Systems (HR PARC)	87.6	2010 - 2013
2	Indigenization of Lab-on-Chip for UTI Pathogen Detection	N.N Sharma (Co-PI)	National Program on Micro and Smart Systems (Bio PARC)	64	2009 - 2011
3	Carbon Nanotube from Carbon Black	N.N Sharma	Aditya Birla Group	10	2011-2013
4	Subproject of Project OSCAR	Sai Jagan Mohan	MHRD	3	2011
5	Design and Development of robotic exoskeleton for upper limb rehabilitation and assistance	B K Rout	BITS Pilani Seed Grant	15.1	2011-2013
6	Design and development of condition monitoring of pipelines using WSN	A K Jalan and Sharad S (Co-PIs)	Gas authority of India Limited (GAIL)	71.36	2012-2014
7	Design and Development of Test	N N Sharma	UGC Major Research	9.37	2012-



	rig to understand the Dynamics of Nanorobots		Project		2014
8	MEMS based Bio-particle Separator	N N Sharma	DBT	40.5	2012
9	NPMASS MEMS Design Center	N N Sharma	NPMASS	75	2013

Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Development, Design and Engineering of 28-DOF Humanoid to avoid obstacles and handle specified objects in the environment	B K Rout	Ministry of Information and Technology, (MIT)	45	2012-15
2	An Integrated Approach Towards Developing Surface Engineered Biofibre Reinforced Hybrid Composites	S B Ghosh	UGC Start-up Grant	6	2013-15
3	Development and Validation of Sustainability Measurement Framework for Manufacturing Industries	A K Digalwar	UGC Major Research Project	3.22	2013-16
4	Development of drivers, barriers and key performance indicators for implementation of green manufacturing in Indian Micro, small and medium ceramic enterprises	K S Sangwan	UGC Major Research Project	9.908	2013-16
5	Implementation framework for Indian Manufacturing Industry	Srikanta Routroy	UGC Major Research Project	9.4	2013-16
6	Characterization of surface errors in machining of thin-walled curved geometries	T C Bera	DST	24.09	2013-16
7	Experimental Investigation on CO2 Based Refrigeration System in Trans-critical Cycle	M S Dasgupta	DST	27.5	2014-16
8	Studies in fluidized bed combustor with co firing rice husk and coal under oxy fired conditions	Ravi Inder Singh	DST	31.13	2014-17

Total funds received : 530.178 lakh rupees

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration

Sl. No.	Project	Institutions	Collaborators	Funding Agency	Amount	Duration
1	Flow in Closed Microfluidic Channels	IIT Bombay, BITS Pilani	N.N.Sharma, INUP	IIT Bombay	Sanctions for Equipment usage, Acco., TA/DA, Consumables and other actual	2011-2012
2	Design and development of Optofluidic Micropumps	CEERI, BITS Pilani	N N Sharma CEERI	CEERI	Sanctions for Actual for chemicals, Equipment usage, Manpower	2011-2014



b) International collaboration

Sl. No.	Project	Institutions	Collaborators	Funding Agency	Amount	Duration
1	A joint project on lean and green manufacturing	BITS Pilani, India, TU-Braunschweig, Germany	K S Sangwan, Christoph Herrmann	DAAD	54030 Euros	2011
2	Indo-German Automotive Life Cycle Engineering	BITS Pilani, India, TU-Braunschweig, Germany	K S Sangwan, Christoph Herrmann, K C Vora	DAAD	70 Lakhs	2013 – 2015

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sl. No.	Project	Funding Agency	Amount (Lakhs)	Duration
1	Innovative Product Design and Development	UGC-SAP	38	2007 – 2012
2	Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions	DST-FIST	165	2012 – 2017

20. Research facility / centre with

- **State recognition:** (i) Centre for Renewable Energy and Environmental Development (CREED), (ii) Centre for Material Testing (CMT), (iii) Centre for Robotics and Intelligent Systems (CRIS), (iv) NPMASS MEMS Design Centre
- **National recognition:** (i) Centre for Renewable Energy and Environmental Development (CREED), (ii) Centre for Material Testing (CMT), (iii) Centre for Robotics and Intelligent Systems (CRIS), (iv) NPMASS MEMS Design Centre
- **International recognition: No information**

21. Special research laboratories sponsored by / created by industry or corporate bodies : NIL

22. Publications:

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	153
2	Monographs	0
3	Chapters in Books	19
4	Edited Books	2
5	Books with ISBN with details of publishers	2
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	150
7	Citation Index – (Max/Avg./Min)	1326/195.7/4
8	SNIP(Max/Avg./Min)	3.795/1.170/0.142
9	SJR (Max /Avg. / Min)	2.982/0.757/0.112
10	Impact Factor – (Scopus) (Max / Avg. / Min)	7.031/1.50/0.111
11	h-index (Max / Avg. / Min)	20/5.95/1



12	Number of papers published in reputed National and International Conferences	95
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Details of the publications as per the number give above (Give details in the last five years)

SL No	Authors	Title of the Publications	Details of the Journal	National / International	Year
1	TC Bera, KA Desai, PVM Rao	On milling of thin-walled tubular geometries	IMechE, Part B, Journal of Engineering Manufacture, 224(12), 2010, 1804-1816.	International	2010
2	M Dwivedy, RK Mittal	A framework model for the selection of examination mode for courses offered in engineering colleges	International Journal of Management in Education, 2010 Vol.4, No.2, pp.107 - 119	International	2010
3	JS Rathore and NN Sharma	Engineering Nanorobot: Chronology of Modeling Flagellar Propulsion	J Nanotechnol Eng Med, Transactions of the ASME, 1(3) 031001, pp. 1-6.	International	2010
4	Dileep Kumar Gupta, Deepak Kumar Singh, and M. S. Dasgupta	Environmental Effect on Gas Cooler Design for Trans-critical Carbon Dioxide Refrigeration System in Indian Context	Journal of Advanced Research in Mechanical Engineering, pp 147-152	International	2010
5	B.K., Rout, Mittal, R.K.,	Optimal design of manipulator parameter using evolutionary optimization techniques	Robotica, Vol. 28(3), May 2010, pp. 381–395.	International	2010
6	B.K., Rout, R.K.,Mittal,	Simultaneous Selection of Optimal Parameters and Tolerance of Manipulator Using Evolutionary Optimization Technique	Structural and Multidisciplinary Optimization, Vol. 40(1-6), Jan. 2010 pp 513-528.	International	2010
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145	Sunil D., Samir D., Atul B., Digalwar A. K. and Mangesh P.	Sustainability issues in turning process: A study in Indian machining Industry	Procedia CIRP, Vol. 26, pp. 379-384	International	2015
146	Srikanta Routroy, Manu Dixit and Sunil Kumar C V	Achieving Supply Chain Coordination through Lot Size Based Discount	Procedia Material Science, 2 (4-5), pp. 2433–2442	International	2015
147	Sunil Kumar C V and Srikanta Routroy	Demystifying Manufacturer Satisfaction through Kano Model	Procedia Material Science, 2 (4-5), pp. 1585–1594	International	2015
148	NVK Jasti, R Kodali	Validity and reliability of lean enterprise frameworks in Indian manufacturing industry	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of mechanical engineering	National	2015
149	NVK Jasti, R Kodali	A critical review of lean supply chain management frameworks: proposed framework	Production Planning & Control, 26 (13), pp. 1051-1068	International	2015
150	M Dwivedy, P Suchde, RK Mittal	Modeling and assessment of e-waste take-back strategies in India	Resources, Conservation and Recycling, 96, pp. 11–18	International	2015
151	P Chansoria, P Solanki, MS Dasgupta	Parametric study of transient temperature distribution in FSW of 304L stainless steel	The International Journal of Advanced Manufacturing Technology, Volume 80, Issue 5, pp 1223-1239	International	2015



152	Ravi Inder Singh	Agglomeration in stripper ash coolers of CFBC- A Case Study	The Journal of Institution of Engineers-Part C	International	2015
153	Ketan Diwan , M. S. Soni	Heat Transfer Enhancement in Absorber Tube of Parabolic Trough Concentrators Using Wire-Coils Inserts	Universal Journal of Mechanical Engineering, 3(3):107-112	International	2015

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SL No	Authors	Title of the Chapter	Details of the Book	ISBN	Year
1	Sangwan K S,	Fuziness in materials flow and plant layout	Kahraman C and Yavuz M, eds., Production Engineering and Management under Fuziness, Springer-Verlag, Berlin Heidelberg	9783642120527	2010
2	Digalwar A. K	Supplier Partnering for Sustainable Business Development	K S Sangwan, A K Digalwar and Monica Sharma (eds), Sustainable Manufacturing, EPH, New Delhi	9789381583104	2011
3	Digalwar A. K	Power generation and saving from machine tools	K S Sangwan, A K Digalwar and Monica Sharma (eds), Sustainable Manufacturing, EPH, New Delhi	9789381583104	2011
4	Digalwar A. K	Sustainability Issues and Challenges in Automobile Industry: An Indian Perspective	K S Sangwan, A K Digalwar and Monica Sharma (eds), Sustainable Manufacturing, EPH, New Delhi	9789381583104	2011
5	Herrmann C, Sangwan K S, Mennenga M, Halubek P and Egede P,	Assessment of Alternate Propulsion Systems for Vehicles	Hesselbach Jurgen and Herrmann Christoph, (eds), Glocalized Solutions for Sustainability in Manufacturing, Springer Berlin	9783642196928	2011
6	Jindal, A. and Sangwan, K. S	Development of an ISM of barriers to reverse logistics implementation in Indian industry	Hesselbach, J. and Herrmann, C. eds. Glocalized Solutions for Sustainability in Manufacturing, Springer Berlin	9783642196911; 9783642196928	2011
7	Mittal V K and Sangwan K S,	Development of an ISM of Obstacles to Environmentally Conscious Technology adoption in Indian industry	Hesselbach Jurgen and Herrmann Christoph, eds, Glocalized Solutions for Sustainability in Manufacturing, Springer Berlin	9783642196928	2011
8	Sangwan K S,	Quantitative and Qualitative Benefits of Green Manufacturing: an Empirical Study of	Hesselbach Jurgen and Herrmann Christoph, eds, Glocalized Solutions for Sustainability in Manufacturing,	9783642196928	2011



		Indian SMEs	Springer Berlin		
9	Sharma, S. K. and Jindal, A.	Green Supply Chain Management	Kuldip Singh Sangwan, A K Digalwar and Monica Sharma (eds), Sustainable Manufacturing, EPH, New Delhi	9789381583104	2011
10	Digalwar A. K. and Metri B. A.	Key Success Factors in Implementation of Knowledge Management in Indian SMEs	Rai, S. K. and Metri B.A. (Eds) Global Business in Changing World, First Edition, Excel Books, New Delhi		2012
11	Jindal, A. and Sangwan, K. S.	Fuzzy Multi Criteria Evaluation of Product Recovery Process	Bhattacharyya, B., Chakraborty, S. and Doloi, B. eds. (AIMTDR). Jadavpur University, Kolkata	9789382062929	2012
12	Mittal V and Sangwan K S,	Environmentally Conscious Manufacturing Initiatives: Investigations on the barriers in Indian industry,	Bhattacharyya B, Chakraborty S, Doloi B, eds., Innovations for Sustainable Manufacturing, , Excel India Publishers, New Delhi	9789382062929	2012
13	V K Mittal, K S Sangwan, Christoph Herrmann, Patricia Egede, and Christian Wulbusch	Drivers and Barriers of Environmentally Conscious Manufacturing: A Comparative Study of Indian and German Organizations	David A. Dornfeld, Barbara S. Linke, eds., Leveraging Technology for a Sustainable World, Springer Singapore.	9783642290695	2012
14	V K Mittal, Patricia Egede, Christoph Herrmann, K S Sangwan,	Comparison of Drivers and Barriers to Green Manufacturing: A Case of India and Germany	Andrew Y.C. Nee Bin Song · Soh-Khim Ong, eds., Re-engineering Manufacturing for Sustainability , Springer Singapore.		2013
15	Dambhare, Sunil, Deshmukh, Samir, Borade, Atul, Digalwar, A.K.	Sustainability Assessment Model for Machining Process	Metri Bhimaraya and PujwanMyoman (Eds) Trends in Operations and Supply Chain Management, 2014, McGraw Hill Education (India) Pvt Ltd., New Delhi	97893392 19376	2014
16	Jindal, A. and Sangwan, K. S	Analysis of Barriers to Reverse Logistics using DEMATEL	Sharma, S. K., Chanda, U., Goyal P., and Shaikh, I. eds. International Conference on Evidence Based Management. EPH, New Delhi	9789384935184	2015
17	Mani Sankar Dasgupta, Dileep Kumar Gupta	Transcritical CO2 Refrigeration System in Tropical Region: Challenges and Opportunities	Gaspar, Pedro Dinis, and Pedro Dinho da Silva, eds., Handbook of Research on Advances and Applications in Refrigeration Systems and Technologies (2 Volumes), IGI Global	9781466683983	2015
18	Prabir Sarkar, Srinivas Kota	Understanding Consumers'	A. Chakrabarti (ed), ICoRD'15 – Research into Design Across	9788132222286 9788132222293	2015



	and Bijendra Kumar	Perceptions of Sustainable Products in India	Boundaries Volume 2, Springer India		
19	Srinivas Kota and Kirthi Bandi	Sustainable Supply Chain in Product Development	A. Chakrabarti (ed), ICoRD'15 – Research into Design Across Boundaries Volume 2, Springer	9788132222286 9788132222293	2015

Edited Books:

SL No	Editors	Title of the Edited Book	Publisher	ISBN	Year
1	Kuldip Singh Sangwan, A K Digalwar and Monica Sharma	Sustainable Manufacturing	EPH, New Delhi	9789381583104	2011
2	S. P Regalla and Kuldip Singh Sangwan	Product Design and Manufacturing: A Product Life Cycle Approach	New Age International Pvt. Ltd., New Delhi	9788122436082	2014

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SL No	Authors	Title of the Publications	Details of the Conference	National / International	Year
1	A. K. Jalan, A. R. Mohanty	Model based fault diagnosis of rotor system	e-maintenance, Sweden	International	2010
2	Digalwar A K and Pandey Koshlendra	Tools and techniques for virtual manufacturing	Recent Advances in Mechanical Engineering (RAM-2010) organized by Deptt. of Mechanical Engineering of SVNIT Surat during 19-21 July 2010.	National	2010
3	Digalwar A. K., Tagalpallewar, A. R. and Sunnapwar V.K.	Critical success factors for green manufacturing	3rd International Conference on Advances in Mechanical Engineering (ICAME-2010), Organized by Deptt. Of Mechanical Engineering at SVNIT Surat during 4-6 Jan 2010, pp. 666-671	International	2010
4	Digalwar A. K. and Ramchandran Rahul	Advances in ball screw mechanism	Recent Advances in Mechanical Engineering (RAM-2010) organized by Deptt. of Mechanical Engineering of SVNIT Surat during 19-21 July 2010.	National	2010
5	Digalwar A.K. and Sangwan K.S.	Knowledge management and employee empowerment for manufacturing excellence: An empirical study	3rd International Conference on Advances in Mechanical Engineering (ICAME-2010), Organized by Deptt. Of Mechanical Engineering at SVNIT Surat during 4-6 Jan 2010, pp. 707-712	International	2010
6	Dileep Kumar Gupta, and M.	Gas cooler Design Issues for Trans-critical Carbon	proc. of int. conference in Advances of mechanical	International	2010



	S. Dasgupta	Dioxide Based Refrigeration System in Indian Context	engineering, ICAME-2010, pp 229-233, SVNIT, Surat		
7	Ippili R.S., Grandhi, U, Rout B.K., Mittal, R.K.,	"Michelangelo: A 3-DOF Sketching Robot"	Proceedings of International Symposium: Robotics and Intelligent Sensors, Nagoya, Japan, 8-10 Mar 2010.	International	2010
8	Srikanta Routroy and Sudeep Kumar Pradhan	Drivers of supply management in manufacturing environment	2nd International Conference on Production and Industrial Engineering, NIT Jalandhar	International	2010
9	Alok Deshpande and M.S. Soni	A Review on Various Components of Adsorption Refrigeration	International Conference on Sustainable Manufacturing Issues, Trends and Practices (ICSM-2011) at BITS, Pilani	International	2011
10	Anil Jindal and K S sangwan	Development of an Interpretive Structural Model of barriers to reverse logistics implementation in Indian industry	Glocalized Solutions for Sustainability in Manufacturing, pp. 448-453. Publisher: Springer Berlin	International	2011
11	Digalwar A. K., Gakkhar, N. and Gujrathi, A. M.	Experimental and numerical optimization based approach for fibre reinforcement in rotomolding	5th International Conference on Advances in Mechanical Engineering (ICAME-2011), Organized by Deptt. Of Mechanical Engineering at SVNIT Surat during 6-8 June 2011, pp. 11-15.	International	2011
12	Digalwar A.K., Tagalpallearwar A.R. and Sunnapwar, V.K	An empirical investigation of green manufacturing practices from Indian Industries"	International Conference on Industrial Engineering and Operations Management (IEOM-2011), Kuala Lumpur, Malaysia, 22-24 Jan 2011.	International	2011
13	Digalwar, A. K. and Jambh, Tarun	Machine Tool Guideways: research scope and directions	2nd National Conference on Recent Advances in Manufacturing (RAM 2011), Organized by Department of Mechanical Engineering, SVNIT Surat during 15-17 Sept. 2011, pp. 205-211.	National	2011
14	Digalwar, A. K. and Sangwan, K.S.	Role of knowledge management in world class manufacturing: an empirical investigation	The IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2011), Singapore, 6-9 December 2011, PP. 415-419.	International	2011
15	Ganneri, Giridhar and Digalwar, A. K.	Sustainability Issues and Challenges in Automobile Industry: An Indian Perspective	International Conference on Sustainable Manufacturing: Issues, trends and Practices, Organized by Mechanical engineering Department of BITS	International	2011



			Pilani during 10-12 Nov. 2011, pp 392-396.		
16	Gupta A., Javed A., Rout B.K.,	"Chronicle of Humanoid Research at Birla Institute of Technology and Science, Pilani – AcYut"	Proceedings of Robotics Symposium, Research and Development Establishments (Engg.), Pune, India, 29-30 Apr 2011.	National	2011
17	Javed, A., Safal, M., Rout, B.K.,	"Numerical Simulation of Compliance Variation for a Topology- Optimized Structure",	Proceedings of IEEE international conference on Process Automation, Control and Computing (PACC), pp 1-5, Coimbatore, Tamilnadu, India, 20-22 July 2011.	National	2011
18	Khond M.P. and Digalwar, A. K.	Supplier Partnering for Sustainable Business Development	International Conference on Sustainable Manufacturing: Issues, trends and Practices, Organized by Mechanical engineering Department of BITS Pilani during 10-12 Nov. 2011, pp. 296-302,	International	2011
19	M. S. Dasgupta	Towards Sustainable E- waste Management Practice in India	ICSM 2011, bits Pilani	National	2011
20	Nikhil G; Rajesh P Mishra; Sachin Woigaunkar;	Experimental Reliability Analysis of Linear Low Density Polyethylene (LLDPE)	International Conference on Advance in Material and Manufacturing Technology, Chitkara University Punjab Chandigarh-Patiala National Highway Rajpura, india (July 20- 21)	International	2011
21	Patel Jigar and Digalwar, A. K.	Power generation and saving from machine tools	International Conference on Sustainable Manufacturing: Issues, trends and Practices, Organized by Mechanical engineering Department of BITS Pilani during 10-12 Nov. 2011, pp 379-383.{	International	2011
22	Srikanta Routroy and Sudeep Kumar Pradhan	Selection of supplier for development in green manufacturing supply chain: a case study	Conference on Sustainable Manufacturing: Issues, Trends and Practices, BITS Pilani, Pilani Campus	National	2011
23	Sudeep Kumar Pradhan and Srikanta Routroy	Analyzing critical success factors of supplier development in manufacturing supply chain	2nd International Conference on Industrial Engineering, Sardar Vallabhbai National Institute of Technology, Surat	International	2011
24	Anil Jindal and K S sangwan	Fuzzy Multi Criteria Evaluation of Collection Methods in Reverse	XVI Annual International Conference of the Society of Operations Management. IIT	International	2012



		logistics	Delhi		
25	Anil Jindal and K S sangwan	Fuzzy Multi Criteria Evaluation of Product Recovery Process	25th All India Manufacturing Technology, Design and Research Conference (AIMTDR)	International	2012
26	Anupam,P., Joshi, D., Dasgupta, M. S.	Intelligent Control of Electric Lamp	Global Summit 2012 on Innovation, London, England	International	2012
27	Bhakar, Vikrant, Digalwar, A. K. and Sangwan, K.S.	Imperative sustainability measurement framework for manufacturing industries	6th ISDSI conference on Operational Excellence: A Key for Performance Excellence, held at IBS Hyderabad, 27-29 December 2012, pp. 20-29.	International	2012
28	Bhakar, Vikrant, Mahajan, Abhinav, Digalwar, A. K. and Sangwan, K.S.	Life Cycle Assessment of recumbent bicycle	International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2012) held at PEC Kapurthala, 5-7 October 2012, pp. 373-377.	International	2012
29	Digalwar, A. K. and Ganneri, Giridhar	Roadmap for the growth of electric vehicles market in India	Conference on Technological Advances in Chemical and Environmental Engineering-2012 (TACEE-2012), Organized by Chemical Engineering Department of BITS Pilani during 23-24 March 2012.	National	2012
30	Digalwar, A. K. and Jain Siddharth	Selection of manufacturing system for business sustainability: A MCDM approach	25th AIMTDR 2012 Conference on Innovation for Sustainable Manufacturing, held at Jadhavpur University Kolkata, 14-16 December 2012, pp. 1323-1328. Excel India Publisher, New Delhi, (ISBN:978-93-82062-92-9)	International	2012
31	Dileep Kumar Gupta and M S Dasgupta	Simulation and Performance Evaluation of Finned Tube Gas Cooler for Trans-Critical CO ₂ Refrigeration System	ICMEME 2012, Transtech and IEEE Computational Intelligence sponsored conference, Dalian, China	International	2012
32	Haridas, P. and Digalwar, A. K.	Quality management practices of software industries: An empirical investigation from India	6th ISDSI conference on Operational Excellence: A Key for Performance Excellence, held at IBS Hyderabad, 27-29 December 2012, pp. 132-143.	International	2012
33	Javed, A., Rout B.K.	Issues in Design for Manufacturing using Topology Optimization Method	National Conference on Modeling, Computational Fluid Dynamics & Operations Research, Birla Institute of Technology &	National	2012



			Science, Pilani, Rajasthan, India, 4-5 Feb 2012.		
34	Javed, A., Rout B.K.,	"Parametric sensitivity studies for reliable topologically optimized structures"	3rd Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS 2012), pp. 252-255, IIT Delhi, India, 6-8 Dec 2012.	International	2012
35	Javed, A., Sengar, A. K., Rout, B.K.,	"A FEM and Image Processing Based Method for Simulation of Manufacturing Imperfections",	Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, pp. 225-229 Punjab Technical University, Kapurthala, India, 5-7 Oct 2012.	International	2012
36	M. S. Soni and Nikhil Gakkhar	A Review on Solar Absorption Refrigeration with Thermal Storage	Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE – 2012), Department of Chemical Engineering, BITS Pilani	National	2012
37	M. S. Soni, Kartik N. Sunku and Maulik Agarwal	Study of Various Parameters Involved in the Design of Solar Cars	Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE – 2012), Department of Chemical Engineering, BITS Pilani	National	2012
38	M.S. Soni	Key note address on Renewable Energy – The Innovative Technologies	National conference on Emerging Trends in Renewable Energy Technology, ETRET- 2012", at Uttam Devi Mohan Lal (UDML) College of Engineering, Jaipur	National	2012
39	M.S. Soni	Key note address on Renewable Energy – The future	National conference on Non Conventional Sources of Energy Development and Its Application in Rural Area and Industries", at Marudhar Engineering College, Bikaner	National	2012
40	Pavan Kumar Potdar and Srikanta Routroy	Integrating environmental thinking into agile manufacturing	Conference on Technological Advancements in Chemical and Environmental Engineering, BITS Pilani, Pilani Campus	National	2012
41	Priyank Sinha; Rajesh P Mishra;	Strategies for sustainable product design for mass customization on Technological	Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, Rajasthan, India March 23 – 24, 2012	International	2012
42	Priyank Sinha; Rajesh P Mishra;	A Generic Model for Mass Customization Implementation", a seminar on Emerging	Indian Institute of Metals, Khetri nagar Rajasthan India (February 19)	National	2012



		trends in base metal mining in India,			
43	Sonar P., Rout B.K.,	Review on Design of Exoskeleton for Rehabilitation Engineering”	8th IAMI BIENNIAL CONFERENCE (Improving Health Through IT), NCMI, AIIMS, New Delhi, India, 3-5 Feb 2012, http://www.aiims.edu/aiims/events/ncmi/ncmi.htm	International	2012
44	Sonar P., Rout B.K.,	Investigation on importance of different postures on biomechanical system by OPENSIM software and computational tools,	Proceedings of 3rd Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS 2012), pp. 676 -679, IIT Delhi, India, 6-8 Dec 2012.	International	2012
45	Srikanta Routroy and Sudeep Kumar Pradhan	Identification, quantification and analysis of supply chain risk factors	First International Conference on Best Practices in Supply Chain Management	International	2012
46	Srikanta Routroy, Manu Dixit and Debabarat Ghosh	Dynamic pricing decision for perishable product at retail outlet: An optimization model	National Conference on Modeling, Computational Fluid Dynamics and Operations Research, BITS Pilani, Pilani Campus	National	2012
47	Srikanta Routroy, Pradipta Kumar Das and Manu Dixit	Development of Optimum Dynamic Pricing Model for Perishable Product in Different Demand Environments	First International Conference on Best Practices in Supply Chain Management, SOA University, Bhubaneswar	International	2012
48	TC Bera	A flexible force model for peripheral milling of thin-walled curved geometries	International conference on Virtual Machining Process Technology, Montreal, Canada	International	2012
49	Anil Jindal and K S sangwan	An integrated fuzzy multi-criteria evaluation of sustainable reverse logistics network models	IEEE International Conference on Fuzzy System	International	2013
50	Arjun S.; Rajesh P. Mishra	Responding to a JIT Implementing customer’s decreased batch quantity by reduction of the ordering costs: A supplier’s prerogative,	International Conference on Management and Business Innovation (ICOMBI-2013) April 5-6, 2013	International	2013
51	Bhakar, Vikrant, Digalwar, A. K. and Sangwan, K.S.	Development of organizational and technological performance measures for sustainable	Proceedings of International Conference on Management and Business Innovation, May 17-18, 2013, M.N.I.T. Jaipur, pp. 1-4.	International	2013



		manufacturing			
52	Bhat, Vishwas M; Mishra, Rajesh P; Sundarakrishna, Sainarayanan; Chakraborty, Ayon;	Classification based Reliability Growth prediction on data generated by multiple independent processes,	International Conference on Managing the Asian Century, JCU, Singapore, July 2013. Pp-429-440	International	2013
53	Dambhare, S.G., Deshmukh, S.J., Borade, A. B. and Digalwar, A. K.	Sustainability Assessment Model for Machining Process	7th ISDSI and 5th OSCM Conference held at IMI New Delhi during 28th-30th Dec 2013.	International	2013
54	Date, P. A. and Digalwar, A. K.	Selection of pattern material for casting operation using fuzzy PROMETHEE	Proceedings of International Conference on Advanced Engineering Optimization Through Intelligent Techniques, July 1-3, 2013, SVNIT Surat, pp. 238-242.	International	2013
55	Digalwar, A. K. and Kiran, Ravi	Development of Fuzzy AHP model for Evaluation of Aggregate Risk in Green Manufacturing	Proceedings of 2nd IIE conference on Industrial Engineering", Nov. 20-22, 2013, SVNIT Surat, pp.233-236. (Proceedings published by: Excellent Publishing House, New Delhi, ISBN 978-93-83083-37-4).	International	2013
56	Dileep kumar Gutpa and M. S. Dasgupta	Simulation and Performance Evaluation of Air-Cooled Finned-Tube Gas Cooler For Trans-Critical Carbon Dioxide Refrigeration System in Indian Context	2nd IIR International Conference on Sustainability and the Cold Chain, PARIS	International	2013
57	Kotesa RS, Rathore JS, and Sharma NN	Helical Wave Propulsion for a Tapered Flagellum	International Conference on Emerging Technologies: Micro to Nano 2013 (ETMN-2013), BITS-Pilani Goa Campus, 23-24 Feb, 2013	International	2013
58	Lakshminarayana, K. V. and Digalwar, A. K.	Rain water harvesting system for sustainable industrial water use	Proceedings of National conference on Sustainable Water Resources Planning, Management and Impact of Climate Change (SWRM 2013), April 5-6 2013, BITS Pilani-Hyderabad Campus, pp. 51.	National	2013



59	M.S. Soni	Key note address on Renewable Energy in India- Potential and Scope	National conference on Research Methodology and Advancement in Engineering & Science, at Shanti Niketan College of Engineering, Hisar	National	2013
60	M.S. Soni, Padmini M.	Concentrating Solar Photovoltaic	IVth International Conference on Advances in Energy Research, IIT Bombay, Mumbai, India	International	2013
61	Nikhil Gakkhar, M.S. Soni	Techno-Economic Parametric Assessment of CSP Power Generations Technologies in India	IVth International Conference on Advances in Energy Research, IIT Bombay, Mumbai, India	International	2013
62	Rajesh P. Mishra, Gajanand Gupta,	Minimization of Setup Time For N Jobs for M Machines,	BITS Pilani	National	2013
63	Shivam Agrawal; Rajesh P Mishra;	JIT Implementation in Global Business” National seminar on Advanced Technologies in Mining and Beneficiation of base metals,	Indian Institute of Metals, Khetri nagar Rajasthan India (January 19) pp-69-72	National	2013
64	Srikanta Routroy and Sudhir P R	FDI in Indian Vegetable Supply Chain: Opportunities & Challenges	International Conference on Management and Business Innovation, Malaviya National Institute of Technology (MNIT), Jaipur	International	2013
65	Sudeep Kumar Pradhan and Srikanta Routroy	Supply Management Integration	International Conference on Industrial Engineering, Sardar Vallabhbhai National Institute of Technology, Surat	International	2013
66	Sudeep Kumar Pradhan and Srikanta Routroy	Structuring of Critical Success Factors (CSFs) for Contract Management Implementation	International Conference on Industrial Engineering, Sardar Vallabhbhai National Institute of Technology, Surat	International	2013
67	TC Bera	Improvement of surface accuracy in milling of thin-walled straight geometries	International conference on Mechanical, Automotive and Aerospace Engineering, Kuala Lumpur, Malaysia	International	2013
68	TC Bera	An approach to error reduction in milling of thin-walled straight geometries	International conference on Advanced Manufacturing and Automation, Tamilnadu, India	International	2013
69	Wankhede, Sahil and Digalwar, A. K.	Analysis of sustainability practices of Indian manufacturing industries:A MCDM approach	Proceedings of International Conference on Advances in Mechanical Engineering, May 29-31, 2013, COEP Pune, Maharashtra, India, (Paper ID-	International	2013



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70	Bhakar, Vikrant, Lakshminarayanan, Digalwar, A. K., Sangwan, K.S.(Life cycle assessment of flexible manufacturing system training process	Proceedings of National Conference on Emerging Trends in Mechanical Engineering held at BNCE, Pusad, During 26-27 March 2014, pp. 184-190.	National	2014
71	Bhat, Vishwas M; Mishra, Rajesh P; Sundarakrishna, Sainarayanan;	Probalistic learning on the occurrence of a failure mode applied to Reliability Growth Prediction National seminar on Indian industries of Mining: futures challenges ,	Indian Institute of Metals, Khetri nagar Rajasthan India (January 18)	National	2014
72	Diwan Ketan, Soni M.S.	Heat transfer enhancement in parabolic trough concentrators using wire-coil inserts	International Conference on Industrial, Mechanical and Production Engineering: Advancements and Current Trends, Department of Mechanical Engineering, MANIT, Bhopal	International	2014
73	G.Gupta, R.P. Mishra	MINIMIZATION OF SETUP TIME FOR N JOBS FOR M MACHINES	National conference on Recent trends and developments in operations research, 2014, BITS Pilani, Rajasthan	National	2014
74	Rajesh P. Mishra, Ram Babu Kodali, Gajanand Gupta, Nidhi Mundra	Development of a framework for implementation of World-class Maintenance Systems using Interpretive Structural Modeling approach,	12th Global Conference on Sustainable Manufacturing	International	2014
75	Ravi Inder Singh	CFD modelling of fluidized bed using waste plastics with Eulerian Eulerian Approach	International Conference on Computational and Health Engineering, Manipal University.	International	2014
76	Sravan Raj P., Soni M.S. and Jakhar Sanjeev	A review on Photovoltaic/Thermal and Concentrated Photovoltaic/Thermal hybrid solar technology	International Congress on Renewable Energy (ICORE)-2014, "Powering National Growth Through Solar", Manekshaw Centre, Parade Road, Delhi Cantonment, New Delhi	International	2014
77	Srikanta Routroy and C V Sunil Kumar	Genetic algorithm for multi-echelon supply chain inventory planning	National Conference on Recent Trends and Developments in Operations Research, BITS Pilani, Pilani Campus	National	2014



78	Suman Shekhar, Soni M.S. and Gakkhar Nikhil	Solar Distillation Technologies in India: Past, Present and Future	International Congress on Renewable Energy (ICORE)-2014, "Powering National Growth Through Solar", Manekshaw Centre, Parade Road, Delhi Cantonment, New Delhi	International	2014
79	Anil Jindal and K S sangwan	Network design and optimization for multi-product, multi-time, multi-echelon closed-loop supply chain under uncertainty	Procedia - CIRP, Swedan, 2015, Vol 29, pp. 658-663	International	2015
80	Bhakar, Vkrant, Sihag, Nitesh, Mamidi, V., Dinda, S., Digalwar, A. K. and Sangwan, K.S.	"Development of self assessment model for enterprise sustainability"	Proceedings of National Conference on Sustainable Manufacturing (NCSM-2015), 2-3 January 2015, MNIT Jaipur, pp. 44-52.	National	2015
81	Borade, Atul, Digalwar, A.K. Suanova, J. and Dambhare, Sunil	Barriers to VMI -FAHP based analysis of VMI stakeholders	8th ISDSI Conference held in Pune during 2-4 January 2015.	International	2015
82	Dambhare Sunil, Borade Atul and Digalwar, A.K.	An Application of TOPSIS for Selection of Machining Parameters From Environmental Impact Perspectiv	8th ISDSI Conference held in Pune during 2-4 January 2015.	International	2015
83	Digalwar, A. K., Mundra, Nidhi, Borade Atula and Metri B.A	Strategic Framework for sustainable development of heavy engineering sector in India	8th ISDSI Conference held in Pune during 2-4 January 2015.	International	2015
84	G. Gupta and R.P. Mishra,	An application of the reliability centered maintenance: case study of conventional lathe machine,	Presented at the 8th ISDSI International Conference, Hyatt Regency, Pune, India, Jan 02-04	International	2015
85	G. Gupta, R P Mishra,	"An application of reliability centered maintenance using fuzzy logic on conventional lathe machine",	International Conference on Evidence Based Management 2015 (ICEBM2015), BITS Pilani, Pilani Campus, Raj. (India), March 20-21	International	2015
86	G. Gupta, R. P. Mishra, P. Jain,	Reliability Analysis and Identification of Critical Components using Markov,	IEEE conference Singapore	International	2015



87	G.Gupta, R.P. Mishra	An application of the reliability centered maintenance: case study of conventional lathe machine	8th ISDSI International Conference, January 02 - 04, 2015 Hyatt Regency Pune, India	International	2015
88	G.Gupta, R.P. Mishra	An application of reliability centered maintenance using fuzzy logic on conventional lathe machine	International Conference on Evidence Based Management (ICEBM2015), March 20-21,2015 BITS Pilani, Pilani Campus, Raj. (India),	International	2015
89	H Manikandan, TC Bera, SK Patil	Study of effect of feed on cutting force coefficients in turning	International conference on Mechanical, Material, Industrial, Automotative, Aeronautical and Nano-Technology. New Delhi, India	International	2015
90	Prabir Sarkar, Srinivas Kota and Bijendra Kumar	Understanding Consumers' Perceptions of Sustainable Products in India	International Conference on Research into Design 2015, Bangalore	International	2015
91	Ravi Inder Singh	Heat Transfer Analysis of Splash Zone of Short Fluidized bed Combustor using coal and biomass under variable oxygen conditions	Proceedings of CHT-15 ICHMT International Symposium on Advances in Computational Heat Transfer May 25-29, 2015, Rutgers University, Piscataway, USA	International	2015
92	Sishir Goyal and Srikanta Routroy	Various aspects of green issues in Indian steel supply chain: An overview	First International Conference on Evidence Based Management, BITS Pilani, Pilani Campus	International	2015
93	Srikanta Routroy and Sunil Kumar C V	Modeling Inter dependencies of Supplier Development Enablers	3rd International Conference on Industrial Engineering (ICIE-2015) & 57th National Convention of Indian Institution of Industrial Engineering, Sardar Vallabhbhai National Institute of Technology, Surat	International	2015
94	Srinivas Kota and Kirthi Bandi	Sustainable Supply Chain in Product Development	International Conference on Research into Design 2015, Bangalore	International	2015
95	Sunil Kumar C V and Srikanta Routroy	Demystifying Supplier Satisfaction through Kano Model	First International Conference on Evidence Based Management, BITS Pilani, Pilani Campus	International	2015

23. Details of patents and income generated:

Sachin U Belgamwar and N. N. Sharma "Method Of Producing Uniform Mixture of Copper And Carbon Nanotube In Bulk For Copper Metal Nanocomposite" Indian Patent, Application No.: 2454/DEL/2012 A, Publication Date: 07/12/2012, ISSUE NO. 49/2012

24. Areas of consultancy and income generated

Prof. MS Dasgupta - Centre for Material testing - 5 Lakhs Year -2011-13

Prof. M.S. Dasgupta and Prof. P. Srinivasan - Hindustan Ceramics -2 Lakhs - 2012-13



25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

SL No	Name of the faculty	Name of the Fellowship	University and Laboratory visited	Duration
1	BK Rout	IUSSTF Research Fellowship 2012	Rehabilitation Institute of Chicago, Affiliated to Northwestern University, Chicago	(Jan - July) 2013
2	R P Mishra	University Immersion Program of BITS Pilani	University of Tennessee	(May -July) 2013
3	NN Sharma	University Immersion Program of BITS Pilani	ETH Zurich	(May -July) 2014
4	MSK Soni	University Immersion Program of BITS Pilani	University of South Florida	(May -July) 2015
5	S Srivastava	University Immersion Program of BITS Pilani	Robert Gordon University (UK)	(May -July) 2015

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)

SI No	Name	Serving in National committees	Serving in International committees	Editorial Boards	Others
1	M S Dasgupta	IE (India), IIIE	ASME		
2	Kuldip Singh Sangwan	IE(India), Society of Operations Management	Scientific Committee member of CIRP LCE, 2011, 2013, 2014 and 2015	International Journal of Robotics and Mechatronics Engineering	
3	BK Rout	IE (India), IIIE, ISTAM			Reviewer: IEEE Journal for Man Machine Cybernetics, Robotica, Robotics and Computer Integrated Manufacturing, Structural Multi-Disciplinary Optimization, International Journal on Robotics
4	P Srinivasan	ISHMT, IWS, ISTE,IIIE	SAE		Reviewer: International Journals of Materials Science and Engineering A, Journal Powder Technology, Materials and Design
5	A K Digalwar	IIIE, ISTE, SOM, IE	DSI, PMA	The IJMS, AJIE,RJBM	Reviewer: IJER, IJITDM, IJPR,PPC,JCP, IJSOM,IJMS,JBMA,JMBM, MBE, IJAMT,ITRJ,JQME, conferences organized by IEEM, IEOM, SOM, IIIE, ISDSI



6	Srikanta Routroy	IIIE, IE (India)			
7	M S Soni	IE (India), ENFUSE	Committee member, ACCMES 2013		Reviewer: Energy, Advances in Mechanical Engineering, Renewable and Sustainable Energy Reviews
8	Sharad Shrivastava	IE (India), ASME			
9	Rajesh Mishra P	IIIE, IE (India)			
10	Arun Kumar Jalan	IE (India), IIIE			
11	T C Bera	SMIIE, MIE (India)			
12	Murali Palla	IE (India), Associate Member Indian Institute of Metals, Kolkatta			Reviewer: Physical Review B, Physical Review E, Acta Materialia, Scripta Materialia, Applied Physics Letters, Journal of Applied Physics
13	Srinivas Kota	SMIIE, APCBEES, IAENG	Scientific Committee member of ICoRD' 15, ICED' 15		Reviewer: Journal of Cleaner Production, The Design Journal, International Journal of Creativity and Innovation
14	Ravi Inder Singh	MIE, MCI, MIHMT			Reviewer: Energy Conversion and Management, Chemical Engineering Science
15	Sachin Belgamwar	IE (India), ISSS			
16	Anil Jindal	IE (India)			
17	Girish Kant	IE(India), ISTE			
18	Gajanand Gupta	IE (India)			

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

SI No	Name	Training Program/ FDP/ STTP	Title of Conference/ Workshop/ Symposium	Name of the resource person	No of participants	Date of the training program
1	T C Bera	Workshop	2nd Indo-German Workshop on Green	Tina Dettmer, IWF, TU Braunschweig	50 (approx)	7 th Nov, 2013



			Manufacturing			
2	P Srinivasan & Sharad Srivastav	Workshop	Two day Workshop on " RLA of Thermal Power Plant Components	P.Srinivasan, B.K.Raut, Pravin Singru, Sharad Srivastav and Industrial Experts	30	14-15 February 2011
3	Srinivas Kota	Workshop	International Workshop on Cultures of Creativity and Innovation in Design - CoCrealD'15	Paul Rodgers, Paul Jones, University of Northumbria, UK Lorenzo Imbesi, Sapienza University of Rome, Italy Amaresh Chakrabarti, Indian IISc, Bangalore	40	19 - 20 January 2015
4	M.S. Soni	STTP	Recycling and reuse of engineering materials: Conservation of energy sources	M.S. Soni and other experts from Industry and academia, HVPM's College of Engineering and Technology, Amravati (Maharashtra)	30	21st Nov. to 30th Nov. 2011
5	M.S. Soni	Workshop	Solar cooker building workshop for students	Mr. Deepak Gadhia	50	7th April 2014
6	M.S. Soni	Workshop cum training program	Workshop cum training session on competency framework and assessment centre at BITS Pilani Hyderabad Campus	Mr. Anurag Aman and Ms. Neeti Kumar of MERCER, Gurgaon	24	31st Jan and 1st Feb. 2014
7	M.S. Soni	Workshop cum training program	Workshop cum training session on competency framework and assessment centre at Pune	Dr.M.S.Soni, Prof. D.M. Kulkarni and Prof. S P Regalla	24	29th, 30th and 31st March 2014
8	M.S. Soni	Workshop	2nd Indo-German Workshop on Green Manufacturing	Dr. Tina Dettmer, IWF, TU Braunschweig	50 (approx)	7th Nov, 2013
9	M.S. Soni	Workshop cum meet	Growth of Concentrating Solar Technologies,	Officials of RRECL, Jaipur and MNRE	30	31st July 2014



			RRECL, Jaipur			
10	M.S. Soni	Workshop	Northern Region NPMASS Workshop on MEMS Design using Comsol, Intellisuite and Coventor, BITS Pilani	Officials of Comsol, Intellisuite and Coventor. Dr. Sachin Belgamwar	80 (approx)	19th to 24th Feb 2011
11	S. U. Belgamwar	QIP Short Term Course	Workshop on Micro and Nano Manufacturing-2015	Dr J Ramkumar and Dr. S.A. Ramakrishna	40	16th to 20th March 2015
12	S. U. Belgamwar	Workshop	Workshop on analytical instruments for chemical and Environmental Engineers		60	27th and 28th Feb 2015
13	BK Rout	Workshop	Workshop on Physical Medicine and Rehabilitation	Dr. Sandro Mussa Ivaldi	20	1st-8th March 2012

In addition to attending workshops and participating in it, there are many ways Institute provides opportunities to faculty members to conduct research and collaborate with Foreign Universities.

Faculty Recharge

Sl. No	Project Name	Faculty Name	Name of scheme	Grant (Lakh)	Year
1.	High computing facility for material characterization	Murali Palla	BITS Pilani RIG	4	2013-14
2	Development of a framework to manage household waste for sustainable development	Srinivas Kota	BITS Pilani RIG	2	2014-15
3	Development and CFD Modeling of ash cooler of circulating fluidized bed boilers	Ravi Inder Singh	BITS Pilani RIG	2	2014-16

Faculty Excellence Award

Sl. No.	Award	Name of Faculty
1	Opera Awardees 2014	Dr. Murali Palla
2	Opera Awardees 2014	Dr. Srinivas Kota
3	Opera Awardees 2014	Dr. Subrata Bandhu Ghosh

Sponsored University Immersion program



1	R P Mishra	University Immersion Program of BITS Pilani	University of Tennessee	(May -July) 2013
2	NN Sharma	University Immersion Program of BITS Pilani	ETH Zurich	(May -July) 2014
3	MSK Soni	University Immersion Program of BITS Pilani	University of South Florida	(May -July) 2015
4	S Srivastava	University Immersion Program of BITS Pilani	Robert Gordon University (UK)	(May -July) 2015

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects - **100%**
- percentage of students doing projects in collaboration with other universities /industry / institute - **100%**

29. Awards / recognitions received at the national and international level by

Sl No	Name	Awards / recognitions received at the national level	Awards/ recognitions received at the international level
1	A K Digalwar	Executed Assigned tasks by different Public Service Commissions Received travel support grant from CSIR for presenting research paper in IEEM Conference in Singapore	
2	T C Bera	DST International travel support grant	
3	B.K Rout		IUSSTF Research Fellowship 2012

30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

Sl. No	Seminars/ Conferences/Workshops
1	International Conference on Sustainable Manufacturing: Issues, Trends and Practices during 10-12 November 2011. Prof. Kuldip Singh Sangwan was the chairperson; Dr.Abhijeet K. Digalwar and Dr Monica Sharma were the conveners of the conference.
2	UGC-CSIR sponsored two day workshop on "Residual Life Assessment of thermal power Plant components" during 14-15 February 2011; Dr P, Srinivasan and Dr, Sharad Shrivastva were conveners.
3	A workshop on "Umberto©5" a state of the art software for process optimization and life cycle assessment (LCA) by Ms Patricia Egede of TU, Braunschweig, Germany and Prof. K S Sangwan of BITS Pilani at Pilani campus during 1 – 4 November 2011.
4	Prof. N.N. Sharma conducted "MEMS Design Workshop using COMSOL" at BITS, Pilani Dubai Campus, 2-5 Dec. 2011.
5	Prof. N.N. Sharma conducted Nanomaterials & National MEMS Design Center, Mechanical Engineering Department conducted Summer school on CAD for MEMS Design, 18-30 June 2011.
6	Mr J S Rathore & Mr R. Majumder from Nanomaterials & National MEMS Design Center, Mechanical Engineering Department conducted workshop on software training for MEMS Design at NJR and at GITS, Udaipur, 24-27 April, 2011.
7	Prof. N.N. Sharma conducted "Introduction to MEMS and CAD for MEMS Design", at BITS, Pilani Dubai Campus, 23-25 April, 2011.
8	Nanomaterials & National MEMS Design Center, Mechanical Engineering Department conducted with COMSOL, India and Coventorware Inc., funded by National Program on Micro and Smart



	System (NPMASS) “Northern Region software on MEMS Design using COMSOL, Intellisuite and Coventorware”, 18 Feb. 2 Mar. 2011.
9	Dr. Sai Jagan Mohan from Mechanical Engineering Department following workshops under FOSS <ul style="list-style-type: none"> • Introductory MATLAB workshop ,duration: one day • Introduction to Symbolic Computing with MAPLE, duration: two day • Introduction to LATEX 25, duration: one day
10	Dr. Tufan Chandra Bera conducted a Two Day Workshop on Rapid Prototyping during March 11-12, 2012 at BITS Pilani.
11	Prof. K S Sangwan conducted an Indo-German Workshop on Green Manufacturing on November 7, 2013 at BITS Pilani.
12	Centre for Renewable Energy and Environment Development (CREED), Mechanical Engineering Department organized a one day workshop on "Solar cooker building" on 8th April 2014 at BITS Pilani.
13	Prof. Bijay Kumar Rout has conducted HiSENS 2015, India-HU workshop on 12th February 2015 funded by IIT Delhi, Hiroshima University, Japan and CEERI Pilani

31. Code of ethics of research followed by the Department.

"The department follows the code of ethics specified by the Institute". The Institute code of ethics is detailed in the SSR.

32. a) Student profile programme-wise:

Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass %*	
			Male	Female	Male	Female
2010-2011	B.E (Hon.) Mechanical Engineering	14662	77	4	100%	
	B.E (Hon.) Manufacturing Engineering		27	2		
	ME (Design)	4428	9	1		
	ME(Manufacturing System)		8	2		
	ME (Mechanical)		14	1		
		PhD		04		
Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage*	
2011-2012	B.E (Hon.) Mechanical Engineering	12880	78	2	100%	
	B.E (Hon.) Manufacturing Engineering		28	3		
	ME (Design)	4571	12	0		
	ME(Manufacturing System)		7	1		
	ME (Mechanical)		16	0		
		PhD		02		
Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage*	
2012-2013	B.E (Hon.) Mechanical Engineering	15714	78	2	100%	
	B.E (Hon.) Manufacturing Engineering		26	5		
	ME (Design)	4825	8	0		
	ME(Manufacturing System)		6	1		



	ME (Mechanical)		11	1		
	PhD		04			
Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage*	
			Male	Female	Male	Female
2013-2014	B.E (Hon.) Mechanical Engineering	15120	83	2	100%	
	B.E (Hon.) Manufacturing Engineering		30	6		
	ME (Design)	5549	9	0		
	ME(Manufacturing System)		8	1		
	ME (Mechanical)		11	0		
	PhD		12			
Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage*	
			Male	Female	Male	Female
2014-2015	B.E (Hon.) Mechanical Engineering	18717	82	2	100%	
	B.E (Hon.) Manufacturing Engineering		40	1		
	ME (Design)	5172	9	0		
	ME(Manufacturing System)		9	0		
	ME (Mechanical)		11	4		
	PhD		04	01		

a) Student profile programme-wise (off Campus):

Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage	
			Male	Female	Male	Female
2010-2011						
Fall	1. B.S. (Engineering Technology)	323	229	12	60.26	83.33
	2. B.S. (Manufacturing Engineering)		41	0	95.12	NA
Spring	1. B.S. (Engineering Technology)	238	186	2	64.52	50
Fall	1. M.S. (Manufacturing Management)	423	173	4	84.39	100
	2. M.S. (Quality Management)		118	27	86.44	92.59
	3. M.S. (Design Engineering)		37	3	91.89	100
Spring	1. M.S. (Manufacturing Management)	194	139	5	87.05	100

Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage	
			Male	Female	Male	Female
2011-2012						
Fall	1. B.S. (Engineering Technology)	334	256	8	69.14	75
	2. B.S. (Manufacturing Engineering)		83	3	90.36	66.67
Spring	1. B.S. (Engineering Technology)	182	186	2	64.52	50
	2. B.S. (Manufacturing Engineering)					
	3. B.S. (Power Engineering)					
Fall	1. M.S. (Manufacturing Management)	423	173	4	84.39	100
	2. M.S. (Quality Management)		118	27	86.44	92.59
	3. M.S. (Design Engineering)		37	3	91.89	100
Spring	1. M.S. (Manufacturing Management)	194	139	5	87.05	100



Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage	
			Male	Female	Male	Female
2012- 2013	1. B.S. (Engineering Technology)	353	278	5	58.27	80
	2. B.S. (Manufacturing Engineering)		85	1	97.65	100
	3. B.S. (Power Engineering)		50	0	100	NA
	4. B.S. (Engineering Design)		22	5	72.73	80
Fall	1. B.S. (Engineering Technology)	213	173	6	NA	NA
	2. B.S. (Manufacturing Engineering)		28	1	NA	NA
	3. B.S. (Power Engineering)		98	0	NA	NA
Spring	1. M.S. (Manufacturing Management)	354	274	15	90.15	93.33
	2. M.S. (Quality Management)	194	116	23	86.21	86.96
Fall	1. M.S. (Manufacturing Management)	248	182	17	NA	NA
	2. M.S. (Design Engineering)		103	8	NA	NA

Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage	
			Male	Female	Male	Female
2013- 2014	1. B.S. (Engineering Technology)	310	272	3	NA	NA
	2. B.S. (Manufacturing Engineering)		77	2	NA	NA
Fall	1. B.Tech (Manufacturing Technology)		23	0	NA	NA
Spring	1. M.S. (Manufacturing Management)	440	391	23	80.31	82.61
	2. M.S. (Automotive Engineering)		32	1	93.75	100
	3. M.S. (Quality Management)	190	134	32	78.36	75
Fall	1. M.S. (Manufacturing Management)	270	219	8	NA	NA
	2. M.S. (Design Engineering)		74	8	NA	NA
	3. M.S. (Quality Management)	178	112	18	NA	NA

Year	Name of the Programme (refer to question no. 4)	Application Received	Selected		Pass Percentage	
			Male	Female	Male	Female
2014- 2015	1. B.S. (Engineering Design)		20	3	NA	NA
	2. B.S. (Engineering Technology)	352	273	11	NA	NA
	3. B.S. (Manufacturing Engineering)		77	1	NA	NA
	4. B.S. (Power Engineering)		51	0	NA	NA
Fall	1. M.S. (Manufacturing Management)	480	404	37	NA	NA
	2. M.S. (Automotive Engineering)		32	2	NA	NA
	3. M.S. (Quality Management)	305	213	36	NA	NA

33. Diversity of students : Data is not maintained

34. How many students have cleared Civil Services and Defense and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category wise.

Information is not available



35. Student progression

Student progression	Percentage against enrolled
UG to PG	25 % (approx)
PG to M.Phil.	NA
PG to Ph.D.	25%
Ph.D. to Post-Doctoral	NA
Employed	
☐ Campus selection	100 %
☐ Other than campus recruitment	No information
Entrepreneurs	No information

36. Diversity of staff

Percentage of faculty who are graduates	BE/BTech	ME/PhD
of the same university	1/31	54%
from other universities within the State	1/31	0
from universities from other States	29/31	46%
From universities outside the country	00	0

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Dr. JS Rathore - Pilani Campus
Dr. Sachin Belgamwar - Pilani Campus
Dr. Arshad Javed - Pilani Campus
Dr. Sharad Srivastava - Pilani Campus
Dr. Satish Kumar Dubey - Pilani Campus
Dr. Naga Vamsi Jasti - Pilani Campus
Dr. Sudeept Pradhan - Pilani Campus

38. Present details of departmental infrastructural facilities with regard to

- Library - Central Facility
- Internet facilities for staff and students - Centrally Supported IPCU
- Students' laboratories -
 - Central Workshop
 - Thermal Science Lab,
 - Material Testing Lab,
 - Prime movers Lab,
 - IC Engine Lab,



- Mechatronics and Automation Lab
- Research laboratories
 - Centre for Renewable Energy and Environment Development
 - Centre for Robotics and Intelligent Systems
 - Centre for Flexible Manufacturing Systems
 - NPMASS National Centre for MEMS Design

39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university - 30 (Doctoral students)

List of continuing students who are working for their PhD

Sl No.	Student Name	Supervisor Name	Co-Supervisor1	Category
1	MD. A. JAMIL KHAN	Ravindra B Ingle	Sanjay D Pohekar	Aspirant
2	PAVAN K POTDAR	Srikanta Routroy	NA	Faculty Off-Campus (PS)
3	NIKHIL GAKKHAR	Manojkumar S Soni	NA	Research Scholar
4	TAMALIKA BHAKAT	N N Sharma	Ajay Agarwal	Research Scholar
5	K V MURTHY	KS Sangwan	NA	Aspirant
6	C V SUNIL KUMAR	Srikanta Routroy	NA	Research Scholar
7	VIKRANT BHAKAR	Kuldip Singh Sangwan	Abhijit K Digalwar	Research Scholar (Pilani)
8	SANGRAM K DAS	BK Rout	NA	Research Scholar
9	NARASIMHA MURTHY M A	N S Narahari	KS Sangwan	Aspirant
10	KRISHAN KUMAR	R N Sharma	KS Sangwan	Aspirant
11	SIMARPREET SINGH	MS Dasgupta	NA	Research Scholar
12	SANJEEV JAKHAR	MS Soni	NA	Research Scholar
13	MANIKANDAN H	TC Bera	NA	Research Scholar
14	NEETU MALIK	Sharad Srivastava	SB Ghosh	Research Scholar
15	SHIVENDER	KS Sangwan	NA	Part time
16	GAJANAND GUPTA	RP Mishra	NA	Faculty
17	NARPAT S SANGWA	KS Sangwan	NA	Research Scholar
18	SUNIL	MS Soni	NA	Part time
19	ROHIT UPADHYAY	Sharad Srivastava	NA	Part time
20	SHISHIR GOYAL	SK Routroy	NA	Part time
21	S RAMALINGAM	N Saravanan	Regalla SP	Aspirant
22	V P SONAWANE	MS Soni	NA	Aspirant
23	K CHOUDHARY	SS Yadav	MS Dasgupta	Research Scholar
24	NITESH SIHAG	KS Sangwan	NA	Research Scholar
25	NILESH PUROHIT	MS Dasgupta	NA	Research Scholar
26	RAJESH KUMAR	Ravinder Singh	NA	Research Scholar
27	K CHAOU DHARY	Select.....	M S Dasgupta	Research Scholar



28	NIKHAT WASIM	K Srinivas	Amol Marathe	Research Scholar
29	ROHIT GUNERKAR	Arun Jalan	Sachin Belgamwar	Research Scholar
30	K KIRAN RAJ	Murali Palla		Research Scholar

- From other institutions/universities: **03 (Germany)** to pursue Master Degree Thesis.

40. Number of post graduate students getting financial assistance from the university.

Almost 90% of post graduate students are offered financial help from the university (Tuition Fee waiver + Stipend)

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Mechanical Engineering Department offers various need based programs depending on the requirements. This is normal practice in the Institute to discuss every newly introduced program in the senate which is highest decision making body. Prior to this activities inputs are takes from various sources and every stake holders for the programs are discussed at length.

**42. Does the department obtain feedback from
(a) faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

There are forums in which every faculty is given opportunities to participate in discussion process. In addition to this every faculties are entrusted with course development based on their field of expertise.

(b) students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Student feedback is taken once in every semester by Instruction Division.

Apart from this input there are councils in which these topics are discussed and the way courses are handled is discussed. Accordingly every instructor is provided with the anonymous feedback of students for improvement in next semester. Feedback in BITS is taken very seriously and it is an integral part of Faculty Appraisal Systems.

(c) alumni and employers on the programmes offered and how does the department utilize the feedback?

BITS has a very strong alumni base and they are successful in all walks of life. These successful alumni constantly engage with the Institute leadership and Faculty to upgrade the curricula constantly. In addition to this every employer or recruiter is allowed to interact with HOD and Faculty representatives who hear the deficiencies if any and what are their requirements. Accordingly every semester these requirements are discussed in the department and courses are designed based on the need in the market.

43. List the distinguished alumni of the department (maximum 10)

Prof. Bharat Bhusan - Ohio State University

Mr. Baba Kalyani - Chairman, Bharat Forge



Prof. Awtar Kaw - University of Southern Florida
Mr. Prithviraj Chavan - Former Chief Minister of Maharashtra
Mr. Gulu Mirchandani, Co-Founder and Chairman, MIRC Electronics
Mr. Kishor Rajvanshy, Founder and CEO, Fleet Management Ltd. Hong Kong
Mr. B.C.Jain, Chairman, Ankur Scientific
Mr. Ramesh D. Grover, Founder, CMS Group of companies
Mr. Rakesh Verma, Founder, MapmyIndia
Mr. Vijay Kumar Kedia, Founder, Kedia Rain Water Harvesting

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

This department has two students associations: Mechanical Engineering and Manufacturing Engineering. Every Academic year in the month of March Students Organize and get involved in Technical Festival (APOGEE).

Aim of this Technical festival is to expose students to the latest technologies available outside. Students demonstrate projects, present research papers and compete in various technical competitions. Academicians, Researchers and Industrialists with various expertise are invited to give lectures. Every Year in a semester - On an average 3-4 experts for each association are invited to deliver lecture the students. At least 20 Lectures are organized by the respective student associations.

Details needed of special lectures etc

45. List the teaching methods adopted by the faculty for different programmes.

- Black board based teaching
- Tutorial for most of the courses to clear the doubts and increase contact with the students.
- Structured and Non structured Lab sessions to improve the understanding
- LCD - projector based teaching
- Observational based Learning by conducting study tour
- Project based learning

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Constant Interaction between Faculty and students
- Constant Interaction between Industry and Recruitment Agencies and Faculty
- Constant engagement with some of the elite Institutions
- Inputs from the Alumni's who are into academics in US Universities

47. Highlight the participation of students and faculty in extension activities.

Faculty student Interaction takes place at different levels:

- At department level constant interactions takes place to get the feed back
- Every students are encouraged to meet Instructors during Chamber consultation hours where students are encouraged to give feedback directly



- As project guide and research project guide
- During technical Festival and cultural festivals

48. Give details of “beyond syllabus scholarly activities” of the department.

- Providing assignments/homework
- Involving students in projects and course related term papers
- Time to time conduct of discussions
- Chamber consultation

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

The department is reviewed from time to time by External academicians from peer Institutions (IIT) and Industry Professionals.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

This department is constantly striving to produce socially relevant projects and researches. In the pursuit of this faculties are producing very interesting research papers and patents

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

- Strengths
 - Students Quality (Intellectual capital)
 - Diversity of the students and Flexibilities available in academics and regulations
 - Dedicated faculty and staff
 - Faculty strong base in academics and research in FD and HD, with good collaboration with Industry
 - This department is geared up for all cutting edge research and open to new ideas (OPERA grant, Industry and University Immersion scheme which are Unique in India)
- Weaknesses
 - Location based disadvantage
 - Faculty attrition
 - External Grants to upgrade Infrastructure
 - Non availability of Skilled Manpower (Research Scholars)
 - Non availability of Skilled Nonteaching Staff for Lab
- Opportunities
 - To grow in terms of students strength
 - Increase research output (patents and research papers)
 - Increase socially relevant research
 - Interdisciplinary and collaborative research
 - Opportunities to take one year sabbatical leave or participate in Immersion



programs and offering OPERA grant to faculties to retain high calibre faculties.

- Challenges
 - Technological obsolescence
 - Investments to keep lab facilities up to date
 - Attract experienced and well trained faculty members to the department
 - Many IITs have opened in recent past with government funding thus BITS has to constantly remain prepared to eventualities and upgrade the facilities and resources to keep student quality intact who opt for this university
 - Many Private and Foreign Universities and competing in same operating space, thus System must constantly upgrade

52. Future plans of the department.

Faculty and Students are geared to take this department to a new level where the product and technology brought out would be socially relevant and help mankind. Department is putting efforts in the direction of new programs and curriculum which will keep students best prepared for outside world.

53. Any other information regarding your department which you would like to include.

It is a DST-FIST Sponsored (2002-2007) and UGC-SAP Sponsored (2007-2012) Department. We have research focus that benefits industry, society and the environment. Several faculty members of the department also share administrative duties. The Department offers two Integrated First Degree Programs and three Higher Degree Programs on campus apart from off campus programs under continued education scheme.

The curriculums are highly demanding and attracts exceptionally meritorious students from all over India. Research emphasis is there in all tiers of education, First Degree, Higher Degree and Ph.D. Students look for challenging careers in best of the organizations within India and abroad. There is huge potential in the department for Consultancy as well as Technology and Product incubation.

Authored Books:

SL No	Authors	Title of the Book	Publisher	ISBN	Year
1	R K Mittal and I J Nagrath,	Robotics and Control,	Mcgraw Hill Education	9780070482937	2003
2	Nagendra Parashar, R K Mittal,	Elements of Manufacturing Processes	Prentice-Hall India Pvt. Ltd	9788120319585	2002



Pilani Campus: Evaluative Report of the Department PHYSICS

1. **Name of the Department:**PHYSICS
2. **Year of establishment of the Department:** 1964
3. **Is the Department part of a School/Faculty of the university?**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
Integrated Masters = M.Sc. (Hons),
Ph.D. Programme
5. **Interdisciplinary programmes and departments involved:** NONE
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons:** NONE
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments:**
Thermodynamics, Electrical Science-1, Mathematics-I & III, Beginning German, Biophysics, Quantum Info and Computing, IC Fabrication Techniques, Physics and Modelling of Microelectronic Devices, Calculus.
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).** (Refer Support document for calculation)

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	02	02
Associate Professors		08	08
Assistant Professors		11	11
Others*		01	01

Note**:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes,



individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. Of Years of Experience	No. of Ph.D./M.Phil students guided for the last 4 years
Dr. R. R. Mishra	PhD	Professor	Condensed Matter (Theory)	26	01
Dr. D. Bandyopadhyay	PhD	Professor	Condensed Matter (Theory)	18	03
Dr. Kusum Lata	PhD	Associate Professor	Atomic Physics (Theory)	30	-
Dr. S. N. Karbelkar	PhD	Associate Professor	Condensed Matter (Theory)	26	-
Dr. Anshuman Dalvi	PhD	Associate Professor	Condensed Matter (Experiment)	12	02
Dr. D. D. Pant	PhD	Associate Professor	Spectroscopy (Experiment)	23	03
Dr. S. Sindhu	PhD	Associate Professor	Condensed Matter (Experiment)	17	02
Dr. R. Choubisa	PhD	Associate Professor	Atomic Physics (Theory)	10	01
Dr. R. K. Gupta	PhD	Associate Professor	Condensed Matter (Experiment)	10	03
Dr. V. Manjuladevi	PhD	Associate Professor	Condensed Matter (Experiment)	11	02
Dr. Srijata Dey	PhD	Assistant Professor	Condensed Matter (Experiment)	21	-
Dr. Rishikesh Vaidya	PhD	Assistant Professor	Theoretical Particle Physics	13	-
Dr. Niladri Sarkar	PhD	Assistant Professor	Condensed Matter (Theory)	9	01



Dr. Navin Singh	PhD	Assistant Professor	Soft Condensed Matter (Theory)	11	02
Dr. B. Layek	PhD	Assistant Professor	Theoretical Particle Physics	9	01
Dr. Madhukar Mishra	PhD	Assistant Professor	Theoretical Particle Physics	7	02
Dr. Kaushar Vaidya	PhD	Assistant Professor	Observational Astronomy	8	-
Dr. Tapomoy G Sarkar	PhD	Assistant Professor	Theoretical Cosmology	5	02
Dr. J. N. Bandyopadhyay	PhD	Assistant Professor	Complex systems	11	01
Dr. S. Gangopadhyay	PhD	Assistant Professor	Condensed Matter (Experiment)	9	01
Dr. A. Holkundkar	PhD	Assistant Professor	Plasma Physics	5	02

12. **List of senior Visiting Fellows, adjunct faculty, emeritus professors:** NONE

13. **Percentage of classes taken by temporary faculty-programme-wise information:** NONE

14. **Programme-wise Student Teacher Ratio (Refer to Support document for calculation):**

Programme	Teacher to Student Ratio
M.Sc. (Hons)	12.71:1
Ph.D.	1.43:1

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:** SANCTIONED (03), FILLED (02), ACTUAL (02)

16. **Research thrust areas as recognized by major funding agencies:**

- I. Astronomy and Cosmology
- II. Atomic and Molecular Physics
- III. Condensed Matter Physics
- IV. Nuclear and Particle Physics
- V. Optical and Plasma Physics
- VI. Statistical Physics and Complex Systems

17. **Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

A) Completed projects:



S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakh)	Duration
1.	Steady State Measurements of Fluorescent Molecules in Restricted Environments	D.D. Pant	UGC, New Delhi	11.63	2012-2015
2.	Study of Indus Valley Scripts Through Linguistic and Markov Chain Methods	Niladri Sarkar	INSA, New Delhi	6.30	2012-2015
3.	Design and characterization of electro chromic rear view mirrors using conducting polymers	S. Sindhu	DST, New Delhi	39.47	2010-2014
4.	Development of surface plasmon resonance with a novel optical design	Rajkumar Gupta	DST, New Delhi	25.66	2010-2013
5.	Studies on electro-optic switching of Liquid crystals doped with carbon nanotubes	V. Manjuladevi	DST, New Delhi	14.1	2009-2012
6.	Force Induced Unzipping in Biopolymers	Navin Singh	UGC, New Delhi	10.66	2009-2012
7.	Study of spin polarization of electrons in the relativistic (e, 3e) process on atoms	Rakesh Choubisa	DST, New Delhi	9.53	2008-2011
8.	Preparation and characterization of thin films of dibenzyl substituted Poly (3,4-Propylene dioxythiophene (PRODOT) onto glass and polymeric substrates, its feasibility for use in electrochromic device	S. Sindhu	DST, New Delhi	17.39	2008-2011
9.	Study of structure and decay of super heavy nuclei (<i>Project was shelved due to untimely demise of faculty</i>)	C.B. Das	DST, New Delhi	12.60	2014-2014
	TOTAL			147.34	2010-2014

B) Ongoing projects:

S. N.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakh)	Duration
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1.	Time – resolved Spectroscopy of Fluorescent Molecules in Micellar Systems	D.D. Pant	DST-SERB, NEW DELHI	53.01	2014-2017
2.	Thermodynamic studies of force induced transitions in DNA in crowded environment	Navin Singh	DST-SERB, NEW DELHI	18.64	2014-2017
3.	The study of post-reionization HI distribution using the redshifted 21-cm signal and Ly-alpha forest towards understanding cosmic acceleration	T.G. Sarkar	DST-SERB, NEW DELHI	10.38	2014-2017
4.	Study of laser interaction with atomic clusters and preformed plasma	Amol Holkundkar	DST-SERB, NEW DELHI	15	2014-2017
5.	Preparation and characterization of thin films of electrochromic conducting polymer and fabrication of prototype smart pixel displays	S. Sindhu	CSIR, NEW DELHI	15.32	2012-2016
6.	Investigations on Quark-Gluon Plasma (QGP) Through Quarkonia Suppression in QCD Matter	Madhukar Mishra	DST, NEW DELHI	11.40	2012-2015
	TOTAL			123.75	2012-onward

GRAND TOTAL OF (A+B) = Rs. 271.09 Lakh

**UGC, NEW DELHI has sanctioned a start up grant of Rs. 6.00 lakh in 2013 to Dr. Subhashis Gangopadhyay on Transition Metal Induced Epitaxial Growth and Characterizations of Single layer Graphene : a High-Tech Material for Next Generation*

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration:

S. N.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakh)	Duration
1.	Development of Transparent Conducting Coatings on Flexible Substrates for Electrochromic Devices	P.I. Dr. K. Narsimha Rao, Dept of Instrumentation and applied Physics, IISc. Co PI S. Sindhu	DST, New Delhi	16.88	2010-2013

b) International collaboration:

Prof. Rakesh Choubisa is collaborating with researchers of 7 Institutes of Europe and Asia in the International network, "A multiple-scattering computing platform for nanomaterials (MsNano)", under the *Marie Curie International Research Staff Exchange Scheme (IRSES) of the*



European Commission (EC) (sponsored through its 7th Framework Programme (FP-7)). The mobility cost of the exchange visits under the network is paid by EC.

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

FUNDING AGENCY	SANCTIONED YEAR	COMPLETION YEAR	GRANT RECEIVED (Lakh)
UGC SAP – I	2009	2014	51.5
DST FIST – I	2010	2015	58.0
TOTAL			109.5

20. **Research facility / centre with**

- **state recognition** NONE
- **national recognition**

S.N.	Instrument/Facility	Cost (in Lakh)	Procured from	Status
1.	Langmuir Blodgett Trough	8.71	UGC-SAP	All instruments are in working condition
2.	Keithley Electrometer	3.55		
3.	Glove Box	2.98		
4.	Scanning Probe Microscope	1.09		
5.	Lock-in-Amplifier	2.94		
6.	X-Ray Diffractometer	32.35	DST-FIST	
TOTAL		51.62		

- **international recognition** NONE

21. **Special research laboratories sponsored by / created by industry or corporate bodies**
NONE

22. **Publications:**

S. N.	Details	Specify number here	
1.	Number of papers published in peer reviewed journals (national / international)	101	
2.	Monographs	0	
3.	Chapters in Books	4	
4.	Edited Books	1	
5.	Books with ISBN with details of publishers	1	
6.	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	101	
7.	Citation Index – range / average	9-283	100.22
8.	SNIP	0.66-2.81	1.32
9.	SJR	0.27-4.40	1.08
10.	Impact Factor – range / average	0.49-7.51	2.81
11.	h-index	2-10	5.56
12.	Conference papers	27	



23. Details of the publications as per the number give above (Give details in the last five years)

A) Papers in peer reviewed journals: 101

S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
1.	Tapomoy Guha Sarkar, Kanan Datta	On using large scale correlation of the Ly- α forest and redshifted 21-cm signal to probe HI distribution during the post reionization era	Journal of Cosmology and Astroparticle Physics, Vol 08, page 001	International	2015
2.	R Trivedi, D Bandyopadhyay	<u>Hydrogen storage in small size Mg₃Co clusters: A density functional study</u>	International Journal of Hydrogen Energy, Vol – 40 pg-12727-12735	International	2015
3.	R Choubisa	On the relativistic electron impact K-shell (e,(3-1) e) differential cross sections for atoms	J. Phys. B: At. Mol. Opt. PhysVol48 (4), 045201	International	2015
4.	C. R. Siju & L. Raja & N. C. Shivaprakash & S. Sindhu	Gray to transmissive electrochromic switching based on electropolymerized PEDOT-ionic liquid functionalized graphene films	J Solid State Electrochem. DOI 10.1007/s10008-015-2756-4.2015.	International	2015
5.	Sunita Joshi, Santosh Kumari, Rituparna Bhattacharjee, Rajeev Sakhuja and D. D. Pant	Estimation of ground and excited-state dipole moments of synthesized coumarin derivative, (S)-1-((7-hydroxy-2-oxo-2H-chromen-4-yl)methyl)-1H-1,2,3-triazol-4-yl)methyl 2-(((9H-fluoren-9-yl)methoxy)carbonylamino)-3-phenylpropanoate from a solvatochromic shift and theoretical methods	Journal of Molecular Liquids, 209 (2015) 219-223	International	2015
6.	Sunita Joshi, Santosh Kumari, Rituparna Bhattacharjee, Amrit Sarmah, Rajeev Sakhuja and D. D. Pant	Experimental and theoretical study: determination of dipole moment of synthesized coumarin-triazole derivatives and application as turn off fluorescence sensor: high sensitivity for iron (III) ions	Sensors and Actuators, B, vol 220, page 1266-1278.	International	2015



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
7.	Partha Bagchi, Arpan Das, Biswanath Layek, Ajit Mohan Srivastava	Effects of phase transition induced density fluctuations on pulsar dynamics	Phys. Lett. B vol 747, 120 – 124	International	2015
8.	Keerti Choudhary, V. Manjuladevi, RK Gupta, P. Bhattacharyya, A. Hazra & S. Kumar	Ultrathin films of TiO ₂ nanoparticles at interfaces	Langmuir (American Chemical Society), Vol 31 (4), pg 1385-1392	International	2015
9.	Monika Poonia, V. Manjuladevi, R. K. Gupta, S. K. Gupta, J. Singh, P. B. Agarwal, & J. Akhtar,	Ultrathin films of Single-Walled Carbon nanotubes: A potential methane gas sensor	Sci. Adv. Mater. (American Scientific Publishers), Vol 7, pg 455-462	International	2015
10.	A. Hazra, B. Bhowmik, K. Dutta, V. Manjuladevi, RK Gupta & P. Bhattacharyya	Low Temperature Methanol Sensing by p- type Nano Titania: Correlation with Defects States and Schottky Barrier Model	IEEE Transaction on Nanotechnology, Vol 14 (1), Pg 187-195	International	2015
11.	Jitendra Kumar, V. Manjuladevi, RK Gupta, & S. Kumar	Effect of ODA-SWCNTs on the elastic constants and electro-optic response of a liquid crystal	Liquid Crystals (Taylor and Francis), Vol 42 (3), pg 361-369	International	2015
12.	Tej Varma Y, Sunita Joshi, and D. D. Pant	Effect of nanosize micelles of ionic and neutral surfactants on the photophysics of protonated 6-methoxyquinoline: Time-resolved fluorescence study	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, vol 138, pg 818-826	International	2015
13.	A. Bhargava, N. Jain, S. Gangopadhyay, and J. Panwar	Synthesis, characterization and catalytic applications of gold nanoparticle based fungal bionanocatalyst	Process Biochem (ELSEVIER), Vol- 50, pg- 1293	International	2015
14.	A. K. Tiwari, S. Gangopadhyay, C. H. Chang, S. Pande, and S. Saha	Study on Metal Nanoparticles Synthesis and Orientation of Gemini Surfactant Molecules Used as Stabilizer	J. Colloid Interface Sci. (ELSEVIER), Vol- 445, pg- 76	International	2015
15.	Amar Singh and Navin Singh	Effect of salt concentration on the stability of heterogeneous DNA	Physica A: Statistical Mechanics & its Applications, Vol- 419, 328-334	International	2015



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
16.	Sunita Joshi, and D. D. Pant,	Interaction of quinine sulfate with anionic micelles of sodium dodecylsulfate: A time-resolved fluorescence spectroscopy at different pH	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Vol 148, pg 49-59	International	2015
17.	Ritika Sharma, Sunita Joshi, and D. D. Pant	Solvent effect on absorption and fluorescence spectra of cinchonine and cinchonidine dications: Estimation of ground and excited state dipole moments.	Journal of Molecular Liquids, Vol 206, pg 159-164.	International	2015
18.	S. Ganesh and M. Mishra,	A temperature dependent formation time approach for e- suppression at energies available at the CERN Large Hadrons Collider,	Phys. Rev. C, Vol 91, pg 034901	International	2015
19.	J.N. Bandyopadhyya, Tapomoy Guha Sarkar	Effective time-independent analysis for quantum kicked systems	Phys. Rev. E Vol. 91, 032923	International	2015
20.	C. R. Siju, T. R. Saravanan, K. Narasimha Rao and S. Sindhu	Optical, Electrochemical, and Structural Properties of Spray Coated Dihexyl Substituted Poly (3,4 propylene dioxothiophene) Film for Optoelectronics Devices.	International Journal of Polymeric Materials and Polymeric Biomaterials, 63: 374–379, 2014.	International	2014
21.	Raja L., P. P. Raja, N.C. Shivaprakash, S. Sindhu,	Specroelectrochemical, Switching Kinetics, and Chronoamperometric Studies of Dibenzyl Derivative of Poly (3,4-propylenedioxythiophen) Thin-Film-Based Electrochromic Device,	J. Appl. Polym. Sci. 131, 2014, 40717.	International	2014
22.	Munesh Rathore & Anshuman Dalvi	Crystallization in Li ₂ SO ₄ -Li ₂ O-P ₂ O ₅ glassy ionic system: An assessment through electrical transport	JOURNAL OF NON-CRYSTALLINE SOLIDS Vol 402, pg 79–83	International	2014
23.	Munesh Rathore & Anshuman Dalvi	Effect of conditional glass former variation on electrical transport in Li ₂ O-P ₂ O ₅ glassy	Solid State Ionics, Vol 263, pg 119-124	International	2014



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
		and glass-ceramic ionic system			
24.	R Trivedi, K Dhaka, D Bandyopadhyay	Study of electronic properties, stabilities and magnetic quenching of molybdenum-doped germanium clusters: a density functional investigation	RSC Advances, Vol 4, pg 64825-64834	International	2014
25.	A. Hazra, B. Bhowmik, K. Dutta, V. Manjuladevi, R. K. Gupta, P. P. Chattopadhyay, and P. Bhattacharyya	Formation Mechanism of Anodically Grown Free-standing TiO ₂ Nanotube Array under the Influence of Mixed Electrolytes	Sci. Adv. Mater. (American Scientific Publishers) Vol 6, pg 714-719	International	2014
26.	S. Gangopadhyay, Th. Schmidt, C. Kruse, S. Figge, D. Hommel, and J. Falta	Surface oxidation of GaN(0001): Rf-nitrogen plasma-assisted cleaning for ultra-high vacuum applications	J. Vac. Sci. Technol (AIP), Vol- 32, pg- 051401	International	2014
27.	P. Fageria, S. Gangopadhyay, and S. Pande	Synthesis of ZnO/Au and ZnO/Ag nano-particles and their photocatalytic application using UV and visible light	RSC Adv, Vol- 4, pg- 24962	International	2014
28.	A. R. Holkundkar, G. Mishra, N. K. Gupta	Laser induced neutron production by the explosion of deuterium clusters	Phys. Plasmas (AIP), Vol 21, pg 13101.	International	2014
29.	Trived Mishra, Tapomoy Guha Sarkar, J.N. Bandyopadhyay	Thermal Properties of a Particle Confined to a Parabolic Quantum Well in 2D Space with Conical Disclination	Phys. Rev. E Vol. 89, Issue 1, 012103	International	2014
30.	Monika Poonia, Anagh Pathak, V. Manjuladevi, R. K. Gupta	Studies on adsorption of DNA on functional ultrathin films of cationic surfactant	Ind. J. Mat. Sci. (Hindawi), Vol 2014, pg 502429	International	2014
31.	A. Hazra, K. Dutta, B. Bhowmik, V. Manjuladevi, R. K. Gupta, P. P. Chattopadhyay and P.	Structural and optical characterizations of electrochemically grown connected and free standing	J. Elect. Maters (Springer), Vol 43 (9), pg 3229	International	2014



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
	Bhattacharyya	TiO ₂ nanotube array			
32.	C. Karthik, Keerti Choudhary, Aditya Joshi, Abhuth Gupta, V. Manjuladevi, and R. K. Gupta, Sandeep Kumar	Studies on thin films of Hexa-alkoxy triphenylene(HAT5) and composite of HAT5-TiO ₂ nanoparticles	Advanced Science Letters (American Scientific Publishers), Vol 20, pg 1138-1142	International	2014
33.	C. Karthik, V. Manjuladevi, R. K. Gupta, S. Kumar	Pattern formation in Langmuir-Blodgett films of tricycloquinazoline based discotic liquid crystal molecules	Journal of Molecular Structure (Elsevier), Vol 1070, pg 52-57	International	2014
34.	Monika Poonia, RK Gupta, V. Manjuladevi, SK Gupta & J. Akhtar,	Supramolecular assembly of single-walled carbon nanotubes at air-solid interface	J. Nanoparticle Res. (Springer), Vol 16 (8), pg 2572	International	2014
35.	A. R. Holkundkar and C. Harvey,	Magnetic mirror cavities as terahertz radiation sources and a means of quantifying radiation friction	Phys. Plasmas, 21, 103102	International	2014
36.	Sunita Joshi, Santosh Kumari, Rituparna Bhattacharjee, Rajeev Sakhuja and D. D. Pant	Estimation of ground and excited state dipole moments of synthesized coumarin derivative [N-(2-oxo-2H-chromen-4-yl)imino]triphenylphosphorane	Journal of Molecular Liquids, (2014) 115-119.	International	2014
37.	Sunita Joshi and D. D. Pant	Steady state and time-resolved fluorescence spectroscopy of quinine sulfate dication bound to sodium dodecylsulfate micelles: Fluorescent complex formation	Journal of Luminescence 145 (2014) 224-231	International	2014



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
38.	Keerti Mohit Sahni, Sushant Singh, Richa Bhargava, Amit Kumar Chawla, Ramesh Chandra, Anshuman Dalvi, Neha Gupta, Sanjeev Kumar, Naresh Kumar	Enhancement of Magnetic and Dielectric Properties in Chemically Modified Multiferroic (0.90)BiFe _{1-x} Cr _x O ₃ –(0.10)BaTiO ₃ Nanocomposite	J. Supercond Nov Magn (Springer) Vol 26, pg397-402.	International	2013
39.	R. Choubisa & M. Jain	On the spin interplay of the ejected electrons in the relativistic electron impact K-shell double ionization of atoms	J. Phys. B: At. Mol. Opt. Phys, Vol 46, 185202	International	2013
40.	C.R. Siju., K. Narasimha Rao and S. Sindhu.	Enhanced performance Characteristic of Electropolymerized PEDOT films on ITO by one step cyclic voltammetry.	J. Optics, (April–June 2013) 42(2):67–72.	International	2013
41.	Munesh Rathore & Anshuman Dalvi	Electrical transport in Li ₂ SO ₄ -Li ₂ O-P ₂ O ₅ ionic glasses and glass-ceramic composites: A comparative study	Solid State Ionics, Vol 239, pg 50-55	International	2013
42.	Neha Gupta & Anshuman Dalvi	Structural and electrical transport studies in CuI substituted AgI-oxysalt glass-ceramic nanocomposites formed during crystallization	Ind. J. Pure and App. Phys., Vol 51, pg 328-330.	International	2013
43.	Munesh Rathore & Anshuman Dalvi	Electrical transport in Li ₂ SO ₄ -Li ₂ O-B ₂ O ₃ glass-ceramic composites	Ind. J. Pure and App. Phys., Vol 51, pg 372-375	International	2013
44.	K Dhaka, R Trivedi, D Bandyopadhyay	Electronic structure and stabilities of Ni-doped germanium nanoclusters: a density functional modeling study	Journal of molecular modeling Vol 19 (4), pg 1473-1488	International	2013
45.	D. Acharyya, A. Hazra, K. Dutta, R. K. Gupta & P. Bhattacharyya	Highly repeatable multi level resistive switching characteristics of Au/TiO ₂ /Ti memory device	Semicond. Sci. & Technol, IOP, Vol 28, pg 125001	International	2013



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
46.	V. Manjuladevi, Jitendra Kumar and Raj Kumar Gupta	Transparent ITO films for liquid crystal display application	Rev. Adv. Sci. Eng. (American Scientific Publishers), Vol 2 (4), pg 305-312	International	2013
47.	S.K. Gupta, J. Singh, K. Anbalangan, P. Kothari, R. R. Bhatia, P.K. Mishra, V. Manjuladevi, R.K. Gupta and J. Akhtar	Synthesis, phase to phase deposition and characterization of rutile nanocrystalline titanium dioxide (TiO ₂) thin films	Applied Surface Science (Elsevier), Vol 264 (1), pg 737-742	International	2013
48.	Amar Singh and Navin Singh	Phase diagram of mechanically stretched DNA: The salt effect	Physica A: Statistical Mechanics & its Applications, Vol-392, pg-2052-2059	International	2013
49.	A. R. Holkundkar	Parallel implementation of three-dimensional molecular dynamic simulation for laser-cluster interaction	Phys. Plasmas (AIP), Vol 20, pg 113110	International	2013
50.	G. Brodin, A. Holkundkar, and M. Marklund,	Particle-in-cell simulations of electron spin effects in plasmas	J. Plasma Phys., (Cambridge Journals), Vol 79, pg 377-382,	International	2013
51.	S. Ganesh and M. Mishra,	Bottomonium suppression at $\sqrt{s_{NN}} = 2.76$ TeV using model based on color screening and gluonic dissociation with collisional damping,	Phys. Rev. C, Vol 88, pg 044908	International	2013
52.	P. K. Srivastava, M. Mishra and C. P. Singh	Colour screening scenario for quarkonia suppression in a quasiparticle model compared with data obtained from experiments at the CERN SPS, BNL RHIC, and CERN LHC	Phys. Rev. C, Vol 87, pg 034903	International	2013
53.	Tapomoy Guha Sarkar, Dhiraj Kumar Hazra	Probing primordial non-Gaussianity: The 3D Bispectrum of Ly-alpha forest and the redshifted 21-cm signal from the post reionization epoch	Journal of Cosmology and Astroparticle Physics. Volume 04, No. 002	International	2013



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
54.	Tapomoy Guha Sarkar, Somnath Bharadwaj	Predictions for BAO distance estimates from the cross-correlation of the Lyman-alpha forest and redshifted 21-cm emission	Journal of Cosmology and Astroparticle Physics Volume 08, No. 023	International	2013
55.	Sunita Joshi, Tej Varma Y and D. D. Pant	Steady state and time-resolved fluorescence spectroscopy of quinine sulfate dication in ionic and neutral micelles: Effect of micellar charge on photophysics.	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 425, 59– 67	International	2013
56.	Sunita Joshi, Rituparna Bhattacharjee, Tej Varma Y and D. D. Pant	Estimation of ground and excited state dipole moments of quinidine and quinidine dication: Experimental and numerical methods	Journal of Molecular Liquids 179,88–93	International	2013
57.	Tej Varma Y, Sunita Joshi, and D. D. Pant	Solvatochromatic shift of absorption and fluorescence spectra of 6-methoxyquinoline: Estimation of ground and excited state dipole moments	Journal of Molecular Liquids 179 ,7–11	International	2013
58.	R. Choubisa and M. Jain	Theoretical estimate of FDOS and spin asymmetry for K-shell (e, 3e) processes with transversely spin-polarized relativistic electrons	Phys. Rev. A 86, 022702 (2012).	International	2012
59.	S. Sindhu, C. R. Siju, S. K. Sharma, K. N. Rao, E.S.R. Gopal.	Optical, electrochemical and morphological investigations of poly (3,4 propylenedioxythiophene), Sultone (PProDOT-S) thin films	Bull. Mater. Sci., Vol. 35, No. 4, pp. 611–616, August 2012.	International	2012
60.	Anshuman Dalvi, N. P. Reddy & S. C. Agarwal	The meyer neldel rule and hopping conduction	Solid State Communications, Vol 152, pg 612–615	International	2012
61.	Neha Gupta & Anshuman Dalvi	Electrical, structural and thermal characterization of Cu ₂ O substituted AgI-(Cu ₂ O) _x	Solid State Ionics, Vol 225, pg 363-366	International	2012



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
		(Ag ₂ O) _{1-x} -V ₂ O ₅ glassy superionic system			
62.	D. Bandyopadhyay	Architectures, electronic structures, and stabilities of Cu-doped Gen clusters: density functional modeling	Journal of molecular modeling Vol 18 (8), pg 3887-3902	International	2012
63.	D Bandyopadhyay	Chemisorptions effect of oxygen on the geometries, electronic and magnetic properties of small size Ni n (n= 1-6) clusters	Journal of molecular modeling Vol 18, pg 737-749	International	2012
64.	M Kumar, N Bhattacharyya, D Bandyopadhyay	Architecture, electronic structure and stability of TM@Ge (n)(TM= Ti, Zr and Hf; n= 1-20) clusters: a density functional modeling	Journal of Molecular Modeling Vol 18, pg 405-418	International	2012
65.	Raj Kumar Gupta and Manjuladevi V	Liquid Crystals at Interfaces	Israel Journal of Chemistry (Wiley), Vol 52 (10), pg 809-819	International	2012
66.	Raj Kumar Gupta, Manjuladevi V., C. Karthik, Sandeep Kumar and K.A. Suresh	Studies on Langmuir monolayer of tricycloquinazoline based disk-shaped liquid crystal molecules	Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier), Vol 410, pg 91-97	International	2012
67.	Manjuladevi V., Raj Kumar Gupta and Sandeep Kumar	Effect of functionalized carbon nanotube on electro-optic and dielectric properties of a liquid crystal	Journal of Molecular Liquids (Elsevier), Vol 171, pg 60-63	International	2012
68.	J.N. Bandyopadhyay and J. Gong	Statistical properties of power-law random banded unitary matrices in the delocalization-localization transition regime	European Physical Journal B 85, 335	International	2012
69.	J.N. Bandyopadhyay, T. Paterek, and D. Kaszlikowski	Quantum Coherence and Sensitivity of Avian Magnetoreception	Phys. Rev. Lett. Vol. 109, Issue 11, 110502	International	2012



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
70.	Sunita Joshi and D. D. Pant	Solvatochromic shift and estimation of dipole moment of quinine sulfate	Journal of Molecular Liquids 166; 49 - 52	International	2012
71.	R. Foulston, S. Gangopadhyay, C. Chiutu, P. Moriarty and R. G. Jones	Mono- and multi-layer adsorption of an ionic liquid on Au(110)	Phys. Chem. Chem. Phys. 14, 6054 (2012)	International	2012
72.	A. Sweetman, R. Danza, S. Gangopadhyay, and P. Moriarty	Imaging and manipulation of the Si(100) surface by small-amplitude NC-AFM at zero and very low applied bias	J. Phys. Condens. Matter 24, 084009 (2012).	International	2012
73.	A. Holkundkar, G. Brodin, and M. Marklund	"Proton acceleration by circularly polarized travelling electromagnetic wave"	Phys. Rev. ST Accel. Beams, vol. 15, 091301, (2012)	International	2012
74.	Dhiraj Kumar Hazra, Tapomoy Guha Sarkar	Primordial Non-Gaussianity in the Forest: 3D Bispectrum of Lyman- α Flux Spectra along Multiple Lines of Sight	Physical Review Letters, 109, 121301 (2012)	International	2012
75.	Subhasis Panda, Tapomoy Guha Sarkar , S Pratik Khastgir	Metric deformation and eigenvalue problem in 2D for an irregular boundary	Progress in Theoretical Physics. Volume 127, No. 1, pp. 57-70. (2012)	International	2012
76.	Tapomoy Guha Sarkar , Sourav Mitra, Suman Majumdar, Tirthankar Roy Coudhury	Constraining large scale HI bias using redshifted 21-cm signal from the post-reionization epoch	Monthly Notices of the Royal Astronomical Society. Volume 421, pp 3570-3578. (2012)	International	2012
77.	N Gupta, Anshuman Dalvi, S. Bhardwaj & A. M. Awasthi	Crystallization and glass transition kinetics in Cu ⁺ ion substituted Cux-Ag _{1-x} -Ag ₂ O-V ₂ O ₅ Superionic glasses	J. Non-Cryst. Solids, Vol 357, pg1811-1815	International	2011
78.	N Gupta & A Dalvi	Effect of mixed glass formers on the crystallization kinetics in AgI-Ag ₂ O-V ₂ O ₅ -	IONICS:International Journal of Ionics, Vol17 pg315-322.	International	2011



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
79.	C. R. Siju, K. Narasimha Rao, R. Ganesan, E. S. R. Gopal, and S. Sindhu	Synthesis of poly (3, 4 ethylenedioxythiophene) nano structure using reverse microemulsion polymerization	Phys Status Solidi C. 8, No. 9, 2739–2741 (2011) / DOI 10.1002/pssc.201084053.	International	2011
80.	Shikha Srivastava and Navin Singh	The probability analysis of opening of DNA	The Journal of Chemical Physics, Vol 134, pg 115102	International	2011
81.	Raj Kumar Gupta and Manjuladevi V	Characterization of substrates using atomic force microscope	International Journal of Nanoscience & Nanotechnology (IRPH), Vol- 2, pg-171-176	International	2011
82.	D. D. Pant, Sunita Joshi and Hubert H.Girault	Surface second harmonic generation from coumarin 343 dye - attached TiO ₂ nanoparticles at liquid - liquid interface	Journal of Nano particle Research , 13, 7057 - 7064	International	2011
83.	A. Holkundkar, G. Brodin, and M. Marklund,	"Wakefield generation in magnetized plasmas"	<i>Phys. Rev. E</i> , 84, 036409, (2011).	International	2011
84.	G. Mishra, A. Holkundkar, and N. K. Gupta	"Effect of laser pulse time profile on its absorption by argon clusters"	<i>Laser and Particle Beams</i> , 29,305, (2011)	International	2011
85.	J. Badziak, G. Mishra, N. K. Gupta, and A. Holkundkar,	"Generation of ultraintense proton beams by multi-ps circularly polarized laser pulses for fast ignition-related applications"	<i>Phys. Plasmas</i> , 18, 53108, (2011).	International	2011
86.	A. Holkundkar, G. Mishra, and N. K. Gupta,	"Molecular dynamic simulation for laser cluster interaction"	<i>Phys. Plasmas</i> , 18, 53102, (2011).	International	2011
87.	Tapomoy Guha Sarkar, Somnath Bharadwaj, Tirthankar Roy Choudhury. Kanan K Datta	Cross-correlation of the H I 21-cm signal and Ly α forest: a probe of cosmology	Monthly Notices of Royal Astronomical Society 410, 2 (2011)	International	2011



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
88.	A. Sweetman, S. Jarvis, R. Danza, J. Bamidele, S. Gangopadhyay, G. A. Shaw, L. Kantorovich and P. Moriarty	Toggling Bistable Atoms via Mechanical Switching of Bond Angle	Phys. Rev. Lett. 106, 136101 (2011)	International	2011
89.	J. Falta, Th. Schmidt, S. Gangopadhyay, C. Schulz, S. Kuhr, N. Berner, J. I. Flege, A. Pretorius, A. Rosenauer, K. Sebal, H. Lohmeyer, J. Gutowski, S. Figge, T. Yamaguchi, and D. Hommel	Cleaning and growth morphology of GaN and InGaN surfaces	Phys. Stat. Sol. (b) 248, 1800 (2011).	International	2011
90.	J. Falta, Th. Schmidt, S. Gangopadhyay, T. Clausen, O. Brunke, J. I. Flege, S. Heun, S. Bernstoff, L. Gregoratti and M. Kiskinova	Ultra-thin high-quality silicon nitride films on Si(111)	Euro Phys. Lett. 94, 16003 (2011)	International	2011
91.	Th. Schmidt, M. Siebert, J. I. Flege, S. Figge, S. Gangopadhyay, A. Pretorius, T.-L. Lee, J. Zegenhagen, L. Gregoratti, A. Barinov, A. Rosenauer, D. hommel and J. Falta	Mg and Si dopant incorporation and segregation in GaN	Phys. Stat. Sol. (b) 248, 1810 (2011).	International	2011
92.	S. Das, R. K. Sinha, S. Manna, S. Gangopadhyay, A. Dhar and S. K. Ray	Microstructural, chemical bonding, stress development and charge storage characteristics of Ge nanocrystals embedded in hafnium oxide	J. Nanopart. Res. 13, 587 (2011).	International	2011
93.	N Gupta & A Dalvi	Thermal Stability and Crystallization kinetics in superionic glasses using electrical conductivity-temperature cycles	J Thermal Analysis and Calorimetry, Vol 02 (3), pg 851-856.	International	2010



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
94.	Neha Gupta, Anshuman Dalvi, A. M. Awasthi & S. Bhardwaj	Electrical transport and crystallization in Cu ⁺ ion substituted AgI-Ag ₂ O-V ₂ O ₅ glassy superionic system	Solid State Ionics, Vol 180, pg1607-1612.	International	2010
95.	D Bandyopadhyaya, P Kaur, P Sen	New Insights into Applicability of Electron-Counting Rules in Transition Metal Encapsulating Ge Cage Clusters	The Journal of Physical Chemistry A Vol 114 (50), pg 12986-12991	International	2010
96.	D Bandyopadhyaya, P Sen	Density functional investigation of structure and stability of Ge _n and Ge _n Ni (n= 1– 20) clusters: validity of the electron counting rule	The Journal of Physical Chemistry A 114 (4), 1835-1842	International	2010
97.	M Kumar, BJ Singh, S Kajjam, D Bandyopadhyay	<u>Effect of Transition Metal Doping on Hydrogenated Germanium Nanocages: A Density Functional Investigation</u>	Journal of Computational and Theoretical Nanoscience 7 (1), 296-301	International	2010
98.	S. Das, R. K. Sinha, S. Gangopadhyay, A. Dhar and S. K. Ray	Microstructural characterization and phonon structures in luminescence from surface oxidized Genanocrystals embedded in HfO ₂ matrix	J. Appl. Phys. 108, 053510 (2010).	International	2010
99.	D. Mathur, F. A. Rajgara, A. R. Holkundkar, and N. K. Gupta	"Strong-field ionization and Coulomb explosion of argon clusters by few-cycle laser pulses",	Phys. Rev. A, 82, 25201, (2010)	International	2010
100.	Tapomoy Guha Sarkar,	CMBR weak lensing and HI 21-cm cross-correlation angular power spectrum	Journal of Cosmology and Astroparticle Physics Volume 02, No. 002.(2010)	International	2010
101.	Prasun Datta. Tapomoy Guha Sarkar, S. P. Khastgir	The effect of the <i>w</i> -term on the visibility correlation and power spectrum estimation	Monthly Notices of Royal Astronomical Society 406, 1, L 30-L34 2010	International	2010



Chapters in Books: 4

S.N.	Authors	Title of the Book	Editor	Publisher	Status	Year
1.	V. Manjuladevi & Raj Kumar Gupta	New Developments in Liquid Crystals Research	Anka Trajkovska Petkoska	NOVA Publishers, USA. ISBN: 978-1-63482-456-9	International	2015
2.	Raj Kumar Gupta & V. Manjuladevi	Comprehensive Guide for Nanocoatings Technology Vol 1: Deposition and Mechanism	M. Aliofkhaezrai	NOVA Publishers, USA ISBN:978-1-63482-472-9	International	2014
3.	Raj Kumar Gupta & V. Manjuladevi	Molecular Interactions	Aurelia Meghea	InTech, Croatia, ISBN: 978-953-51-0079-9	International	2012
4.	Rakesh Choubisa	Atomic and Molecular Physics-Introduction to advanced topics	R. Srivastava and R. Choubisa	Narosa Publishing House, New Delhi,	International	2012

B) Books with ISBN and details of publishers: 1

S.N.	Authors	Title of the Book	Publisher	Status	Year
1.	Late Leonard I. Schiff & Jayendra N. Bandyopadhyay	Quantum Mechanics	McGraw-Hill, ISBN:1259062864	International	2014

C) Edited Books with ISBN and details of publishers: 1

S.N.	Authors	Title of the Book	Publisher	Status	Year
1.	R. Srivastava and R. Choubisa	Atomic and Molecular Physics- Introduction to advanced topics	Narosa Publishing House, New Delhi ISBN: 978-81-8487-169-2	International	2012

D) Publications in Conferences: 27



S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
1.	Devanarayana n VP, V. Manjuladevi and RK Gupta	Interaction of graphene with self assembled monolayers	Macromolecular Symposia (Wiley) <i>(In press)</i>	International	2015
2.	Jitendra Kumar, RK Gupta, V. Manjuladevi , S. Kumar	Electro-optic and dielectric studies on quantum dot doped nematic liquid crystal	Macromolecular Symposia (Wiley) <i>(In press)</i>	International	2015
S. N.	Authors	Title of the Publications	Details of the Journal	National/ International	Year
3.	Amar Singh and Navin Singh	Role of loop and end entropies in unzipping of DNA	Macromolecular Symposia (Wiley) <i>(In press)</i>	International	2015
4.	Monika Poonia, Manjuladevi V, Raj Kumar Gupta	Scanning Tunneling Spectroscopy of Thin Films of Carbon Nanotubes	AIP Conference Proceedings, Vol 1536, pp 171-172	International	2015
5.	P Bagchi, A Das, B Layek, A M Srivastava	Probing Dynamics of Phase Transitions Occurring Inside a Pulsar	XXI DAE-BRNS High Energy Physics Symposium; IITG, December 8 -12, 2014 <i>(Accepted for Publication in Springer Proceedings)</i>	National	2015
6.	S. Ganesh, M. Mishra	Upsilon suppression at LHC energy based on temperature based on temperature dependent formation time	XXI DAE-BRNS High Energy Physics Symposium; IITG, December 8 -12, 2014. <i>(Accepted for Publication in Springer Proceedings)</i>	National	2015
7.	S Joshi, D. D. Pant	Dynamic fluorescence quenching of quinine sulfate dication by chloride ion in ionic and neutral micellar environments	AIP conference Proc. vol 1591, page 848	International	2014
8.	Tapomoy Guha Sarkar, S Bharadwaj	The cross-correlation of redshifted 21-cm signal and Lyman-alpha forest: A cosmological probe	Journal of Physics: Conference Series, 484, conference1, pg 012033 (2014)	International	2014
9.	Amar Singh and Navin Singh	Role of stiffness & end entropy in unzipping of DNA chain	AIP Conference Proceedings, vol 1536, page 1201	International	2013



10.	Amar Singh, Bhaskar Mittal and Navin Singh	Force induced unzipping in DNA: The solvent effect	Physics Express, vol 3, page 18	International	2013
11.	Munesh Rathore and Anshuman Dalvi	Structural relaxation at glass transition in Li ₂ O-B ₂ O ₃ glassy ionic system	AIP Conference Proceedings, vol 1512, page 554	International	2013
12.	Munesh Rathore, Anshuman Dalvi, and Anil Kumar	Li ₂ SO ₄ -Li ₂ O-P ₂ O ₅ ionic glass dispersed with [Bmim] [PF ₆] ionic liquid: Electrical transport and thermal stability investigations	AIP Conference Proceedings vol 1591, page 702	International	2013
13.	S Joshi, D. D. Pant	Solvatochromic study of quinidine: Determination of ground and excited state dipole moments	AIP Conference Proceedings, vol 1536, page 797-798	International	2013
14.	YT Varma, S Joshi, D. D. Pant	Estimation of ground and excited state dipole moments of 6-methoxyquinoline from solvatochromic effect on absorption and fluorescence spectra	AIP Conference Proceedings, vol 1536, page 1123-1124	International	2013
15.	Amar Singh and Navin Singh	Stabilization of dsDNA molecule with salt concentration of the solution	International Journal of Physics and Mathematical Sciences, vol 2, page 62	International	2012
16.	Munesh Rathore, Anshuman Dalvi and Anil Kumar	Ionic liquid [BMIM][BF ₄] – glass composites for solid state battery applications	International Journal of Physics and Mathematical Sciences, vol 2 page 1-5	International	2012
17.	Munesh Rathore, Neha Gupta, Himanshu Tyagi, Aditya Kashi and Anshuman Dalvi	Electrical transport in Li ₂ SO ₄ -Li ₂ O-P ₂ O ₅ glassy ionic system in thermally unstable region	International Journal of Physics and Mathematical Sciences, vol 2, page 10-13	International	2012
18.	Neha Gupta and Anshuman Dalvi	Electrical Transport and structural investigations in Cu ₂ O substituted AgI-Ag ₂ O-V ₂ O ₅ glass-ceramic nanocomposites	AIP Conference Proceedings, vol 1447, page 601	International	2012



19.	Neha Gupta, Munesh Rathore, Sukriti Kumari, Manupriya Veerman and Anshuman Dalvi	Electrical transport and impedance spectroscopy investigations in PEO:MgCl ₂ solid polymer electrolyte	International Journal of Physics and Mathematical Sciences, vol 2, page 6-9	International	2012
20.	R Choubisa and Munendra Jain	K-shell (e, 3e) processes with transversely spin- polarized relativistic electrons	J. Phys.: Conf. Ser. vol. 388, page 042051		2012
21.	R Choubisa and Munendra Jain	K-shell (e, 3e) processes with transversely spin- polarized relativistic electrons	Journal of Physics: Conference Series, 388, 042051 (2012)	International	2012
22.	S. Joshi and D. D. Pant	Photophysics of quinine sulphate dication in micellar environments	International Journal of Physics and Mathematical Sciences, vol. 2, page 70	National	2012
23.	S. Joshi, Sunita; Pant, Debi D.	Solvent effects on the absorption and fluorescence spectra of quinine sulphate: Estimation of ground and excited-state dipole moments	AIP Conference Proceedings, vol. 1447, page 201	International	2012
24.	M. Mishra, C. P. Singh and V. J. Menon	J/psi suppression vs centrality at forward and mid-rapidity at RHIC in colour screening mechanism	Indian J. of Physics, vol. 85, page 849		2011
25.	Neha Gupta, Anshuman Dalvi, D Phase, A M Awasthi	Electrical transport in superionic thin films deposited by pulsed laser deposition	AIP Conference Proceedings, vol 1349, page 535	International	2011
26.	Neha Gupta, Munesh Rathore and Anshuman Dalvi	Electrical and electrochemical characterization of PEO- Ag ₂ SO ₄ composite polymer electrolytes	AIP Conf. Proc. vol 1349, page 174-175	International	2011
27.	Hamaguchi, K. et al. including Kaushar Vaidya	A Smoking Gun in the Carina Nebula	AIP Conference Proceedings, Volume 1248, pp. 17-18	International	2010

23. Details of patents and income generated :

None

24. Areas of consultancy and income generated:

None



25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

- i. Prof. Rakesh Choubisa is collaborating with researchers of 7 Institutes of Europe and Asia in the International network, "A multiple-scattering computing platform for nanomaterials (MsNano)", under the *Marie Curie International Research Staff Exchange Scheme (IRSES) of the European Commission (EC) (sponsored through its 7th Framework Programme (FP-7))*. The MsNano network started on 1st September, 2012 and will be completed on 31st August, 2016. Prof. Choubisa is leading a work package on "Impact spectroscopy with in Multiple Scattering Framework". Dr. Didier Sebilleau, coordinator of the network, from CNRS visited BITS, Pilani for 3 months during 2013-2015. Prof. Choubisa visited to Europe for 08 months under the network activities.
- ii. Prof. Anshuman Dalvi was a Visiting Professor and INSA-PAS fellow at the Solid State Ionics division, Physics department Warsaw University of Technology Poland during May-July 2014.
- iii. Dr. Madhukar Mishra availed two months Summer Research Fellowship (SRF) at BHU, Varanasi during Summer - 2012 which was jointly sponsored by the three Indian Science Academies under the Science Academies Summer Fellowship Scheme for University Teachers.
- iv. Dr. Subhasis Gangopadhyay awarded the DAAD fellowship for two months duration (June–Aug, 2014), within the scheme of university academics. He also visited the University of Rennes 1, France as a Marie Curie Researcher for two months during 2014-2015 within the MsNano network, funded by the European Commission under its FP-7 programme.
- v. Dr. Subhasis Gangopadhyay visited the University of Bremen, Germany, during 2013 summer vacation (May-June) as a Visiting Scientist, sponsored by the University of Bremen, Germany.

26. Faculty serving in

a) National committees: None

b) International committees: None

c) Editorial Boards: Prof. S. Sindhu, Journal of Environmental Nanotechnology, Since **d) any other (please specify)**

- i. Prof. Anshuman Dalvi was elected executive member of Indian Solid State Ionics Society for 2011-13 and 2013-15.
- ii. Dr. Subhashis Gangopadhyay was awarded for the honorary membership of the American Vacuum Society (AVS) for 2014-15.
- iii. Prof. Rakesh Choubisa was elected as an executive member of Indian Society for Atomic and Molecular Physics (ISAMP) for 2011-2013.
- iv. Prof. S. Sindhu elected member, International Organizing Committee- EMN Meeting/Optoelectronics Beijing, China from April 24 to 27, 2015.



27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs)

- **Intensive Teaching Workshop:** We have internal Intensive Teaching Workshop (ITW) for all faculty members who join the Institute. This is a compulsory component where they learn and discuss the teaching methodology.
- **Teaching Learning Centre (TLC):** Recently we have started a centre which helps faculty in learning new methodology and innovation in teaching.
- **Sabbatical Leave:** Four of our faculty members availed this facility to make new collaborations. Here is the list of the faculties who has availed the leave:

S.N.	Faculty	From	To	Place of visit	Purpose
1.	Prof. Rakesh Choubisa	01-01-13	30-06-13	i. Universide de Rennes1, Rennes (France) ii. Institute of Physics, Academy of Sciences of the Czech Republik, Prague. iii. LNF (INFN), Frascati (Italy).	Collaborative research under the FP7-IRSES-MsNano network supported by European Commission
2.	Dr. Rishikesh Vaidya	15-01-13	14-06-13	Physical Research Laboratory, Ahmedabad	Collaborative project on Neutrino Physics with Prof. Anjan Joshpura
3.	Dr. Biswanath Layek	01-06-13	31-12-13	Institute of Physics, Bhubaneswar	Collaborative Research
4.	Prof. Subhash Narayan Karbelkar	01-08-13	31-07-14	Raman Research Institute, Bengaluru, India	Collaborative Research

- a) **Research Initiation/Seed Grant:** Institute encourages the newly joined faculty to initiate/carry forward their research in the Institute through this scheme. The faculties who availed this facility are listed below:

S.N.	Faculty	Title of the project	Amount (in Lakh)	Year
1.	Dr. Subhashis Gangopadhyay	Growth and Characterization of Substrate Supported Transition Metal Nanostructures Useful for Catalytic, Electronic and Sensor Applications	2.0	2013
2.	Dr. Niladri Sarkar	Electromagnetic Characterization of Three Dimensional Targets with Plasma Cladding for Stealth Technology Using Recursive Convolution Finite Difference Time Domain Method	5.2	2013

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects: 100 %
- percentage of students doing projects in collaboration with other



universities/industry/institute: 100 %

29. Awards / recognitions received at the national and international level by

• **Faculty**

- 1) **INSA Fellowship awarded** to Prof. Anshuman Dalvi for a two month visit to Solid State Ionics division, Physics department Warsaw University of Technology Poland during May-July 2014
- 2) **DAAD Fellowship awarded** to Dr. Subhashis Gangopadhyay to visit Germany June to August 2014.
- 3) Prof. R. Choubisa is a part of **Marie Curie FP-7-People-IRSES-MsNano** project as a member of project implementation committee.

• **Doctoral / post doctoral fellows**

- i. Neha Gupta **awarded best poster award** in the DAE symposium on Solid State Physics, 2010 held at BARC, Mumbai.
- ii. Devnaryanan V.P. **awarded best poster award in the** International Conference on Soft Materials, MNIT Jaipur, 6-10 October, 2014

• **Students**

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

- i. **A workshop and training on Current Trends in Condensed Matter Material Science** for college teachers was organized during 7-8 March, 2014. The workshop was funded by UGC. About 43 participants and 10 resource person participated in the school.
- ii. **Autumn School on Cosmology** was organized during 5-15 November, 2013. The school was funded by Inter University Centre for Astronomy and Astrophysics, Pune. About 30 student and 6 resource person participated in the school.
- iii. **National Conference on Condensed Matter** was organized during 24-25 February 2012. The conference was funded by UGC, CSIR. About 60 participants across the country participated in the symposium.
- iv. **A workshop for school/college teachers** in collaboration with Prof H.C. Verma, IIT Kanpur during 23-25 December 2011. The workshop gave the teachers an exposure to the research activities in the department and in CEERI through visit to their labs.
- v. **DST-SERC School on Theoretical Techniques in Atomic and Molecular Physics** was organized during 10-28 January, 2011. The school was funded by DST. About 35 participants and 10 Resource persons participated in the school.
- vi. **DAE Nuclear Physics Symposium** supported by DAE (19-24 December, 2010) was organized. About 300 participants across the country participated in the symposium.

31. Code of ethics of research followed by the Department.

The department follows the code of ethics specified by the Institute. The details are given in the SSR.



32. a) Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
First Degree M. Sc. (Hons)					
2010-2011	14662	44	8	100	100
2011-2012	12880	45	9	100	100
2012-2013	15174	44	6	100	100
2013-2014	15120	47	7	100	100
2014-2015	18717	48	9	100	100
PhD					
2010-2011	Data not maintained				
2011-2012					
2012-2013	14	7	4		
2013-2014	18	6	3		
2014-2015	16	6	2		

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students From Universities outside the State	% of students from other countries
Ph.D. Program	11	36	53	0

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Many of our students have cleared the prestigious NET, GATE and Civil services etc. examinations. Official record of those students is not maintained by the department. Our students mostly choose International reputed universities/institutes for their higher studies. Here we list some of our students who are pursuing Ph.D. in reputed Institutes (India/Abroad):



S.N.	NAME	YEAR	PURSUING	UNIVERSITY /INSTITUTE	BROAD DISCIPLINE
1.	Aditya Bawane (GATE 2011-6 th rank, JEST 2011 – 9 th rank)	2011	Ph.D.	SISSA, Italy	Physics
2.	Pratiksha Dongare	2011	Ph.D.	Rice University	Physics
3.	Aditya Chowdhury	2012	Ph.D.	University of Delhi	Physics
4.	Nitish Yadav (NET qualified)	2012	Ph.D.	University of Delhi	Physics
5.	Amrit Raj	2015	Ph.D.	IISc, Bangalore	Physics
6.	Bhargav Joshi	2015	Ph.D.	University of Florida	Physics
7.	Bhavesh Chauhan	2015	Ph.D.	Physical Research Laboratory, Ahmedabad	Physics
8.	Deepthi Gorthi	2015	Ph.D.	University of California, Berkeley	Physics
9.	Sankalp Gilda	2015	Ph.D.	University of Florida	Physics
10.	Vijay Verma	2015	Ph.D.	California Institute of Technology	Physics
Mr. Ashis Pal and Mr. Kapil Dhaka who are enrolled in our Ph.D. program are NET qualified. One of our students Mr. Ishan Mata secured 1 st rank in NET examination in 2014. He has registered for Ph.D. program in this semester.					

35. Student progression

Student progression	Percentage against enrolled
UG to PG	The data are not maintained*
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post Doctoral	
Employed	
▪ Campus selection	194/237 = 82%
▪ Other than campus recruitment	Not able to answer
▪ Entrepreneurs	Not able to answer

*Many students opted for Ph.D. programmes in India and abroad, however, we do not have exact number.

36. Diversity of staff

Percentage of faculty who are graduates (Ph.D. only)	
of the same university	0
from other universities within the State	3 out of 21 = 14%
from universities from other States	15 out of 21 = 72%
from universities outside the country	3 out of 21 = 14%

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period NONE



38. Present details of departmental infrastructural facilities with regard to

- a. **Library:** We have centralised library facility. The funds availed from UGC SAP-I, DST-FIST-1 and funds from the personal grants are utilized to purchase the books related to the department's research and teaching interests.
- b. **Internet facilities for staff and students**
Internet facilities (wired and wireless) are available in all the faculties' office, laboratory, and class rooms. In addition to this wired internet connections are provided to all the student's hostels and to the staff quarters.
- c. **Students' laboratories**
We have four laboratories (Physics lab, Electricity, Magnetism and Optics lab, Modern Physics lab and Advanced Physics Labs) dedicated to all the undergraduate students. In these laboratories we have experiments based on the theoretical courses that are taught to them.
- d. **Research laboratories**
We have five experimental research laboratories where the instrument like X-ray diffractometer, Scanning Probe Microscopes, Langmuir-Blodgett Trough, UV-Visible Spectrometer, etc like sophisticated instruments are installed and used by research scholars and faculty members of the physics as well as by the other departments. In addition to this, we have one computational laboratory where servers of 64-128 GB RAM, quad & octa cores servers are installed which are used by research scholars and faculty members of the department.

39. List of doctoral, post-doctoral students and Research Associates

- **from the host institution/university :** 3 (Please see the list)
- **from other institutions/universities :** 25 (Please see the list)

S.No.	Name of Student	From the host	From other	PhD Status
1.	Rashmita Sahoo		Y	Completed
2.	Neha Gupta		Y	Completed
3.	Manish Kumar		Y	Completed
4.	Munesh Rathore	Y		Completed
5.	Sunita Joshi	Y		Completed
6.	Karthik Chandrashekhar	Y		Submitted
7.	Amar Singh		Y	Ongoing
8.	Devanarayanan V.P.		Y	Ongoing
9.	Keerti Choudhary		Y	Ongoing
10.	Jitendra Kumar		Y	Ongoing
11.	Kapil		Y	Ongoing
12.	Monika Poonia		Y	Ongoing
13.	Ravi Kumar Trivedi		Y	Ongoing
14.	Surendra Pratap		Y	Ongoing
15.	Tej Varma V.		Y	Ongoing
16.	Tridev A. Mishra		Y	Ongoing



S.No.	Name of Student	From the host	From other	PhD Status
17.	L. Raja		Y	Ongoing
18.	C. R. Siju		Y	Ongoing
19.	S. Ganesh		Y	Ongoing (Off Campus)
20.	Rashmi Jangid Sharma		Y	Ongoing (Part time)
21.	Captain Rituraj Singh		Y	Passed PhD Qual. Exam
22.	Sumita Choudhary		Y	Passed PhD Qual. Exam
23.	Shivani Choudhary		Y	Passed PhD Qual. Exam
24.	Prachi Venkat		Y	Course work done
25.	Yadav Pradeep Kumar		Y	Course work ongoing
26.	Arghya Maity		Y	Course work ongoing
27.	Ritika Sharma		Y	Course work ongoing
28.	Ashis K Pal		Y	Course work ongoing

40. Number of post graduate students getting financial assistance from the university.

It is 100% for Ph.D. programme. A student registered in Ph.D. programme of the Institute gets 90% fee waiver in addition to the fellowship provided by the Institute.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

The department has not introduced any new programme in the last 5 years.

42. Does the department obtain feedback from

i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

A major curriculum revision was carried out and implemented in the year 2012. The entire department was involved in the design of this revised curriculum.

Whenever any decision regarding teaching-learning-evaluation, impacting the whole department is taken, the issue is thoroughly discussed in department meetings.

ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

At the end of each semester, students give their feedback on every course offered in that semester. This feedback is then shared with the concerned faculty.

The department has a Student Faculty Council (SFC), a committee comprising both student's representatives as well as few faculties. The council meets regularly to collect students' feedback on the teaching-learning-evaluation of the courses offered in the semester. This feedback is shared with the concerned faculty for them to take necessary corrective measures.



iii. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Such feedback is obtained and utilized at the institute level. The last major curriculum revision which happened three years ago, was partly due to employers' feedback.

43. List the distinguished alumni of the department (maximum 10)

- Chandrasekhar (Director, CEERI Pilani)
- G. Ravikumar (TIFR, Bhatnagar award winner)
- Y.N. Mohapatra (IIT Kanpur)
- S. Mohanty (PRL, Ahmedabad)
- Y.N. Gupta (Washington Univ.)
- Umesh Garg (Univ. Of Notre Dame)
- Sanjib Mishra (Univ. Of South Carolina)
- Sanjay N Rebello (Kansas State Univ.)
- Patrick Dasgupta (Univ. Of Delhi)
- G. Aravind (IIT Madras)

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special lectures and seminars, specially meant for the students, are regularly arranged throughout the academic calendar. These lectures are delivered both by external experts as well as department faculty. There is a club called "Embryo Club" that arranges regular online lectures by eminent persons both from India and abroad.

- Prof. Deshdeep Sahdev** of Physics Department, IIT Kanpur delivered a talk on *Indigenous technology in a Globalized World: A Case Study* on 14th March, 2013.
- Prof. V. D. Vanker** of Physics Department, IIT Delhi has delivered a talk on *Story of Atoms from Niels Bohr's Days* on 7th September, 2013. This talk was organized by the Department of Physics, as a celebration of 100 Years Anniversary for Niels Bohr's.
- Prof. David Griffith** visited Physics department and delivered a lecture.
- Prof. Walter Lewin** visited Physics department and delivered a lecture.
- Prof. Falta** from University of Bremen, Germany delivered a talk on *Surface Science-gateway of new semiconductors and catalysts* on 19th February, 2014.
- Prof. H.C. Verma**, Department of Physics, IIT Kanpur visited Physics Department and delivered a lecture.
- Professor Ajoy Kumar Ghatak**, distinguish professor and academician, IIT Delhi, has delivered a popular talk on, "EINSTEIN & HIS YEAR OF MIRACLES" on 28 August, 2013.
- Prof. P.C. Deshmukh**, IIT-M Chennai, delievered a lecture on *An odyssey in Atomic Physics* on 10 Jan 2011.
- Prof. Y.N. Gupta**, Regent Professor, Washington State University, delivered a



popular lecture on 26 February 2013

- x. **Dr. Sebilliau** from CNRS, France, delivered a series of lectures on the following topics:
 - a) On the Multiple Scattering and the International MsNano network.
 - b) A series of lectures on the Multiple Scattering to the Faculty and PhD students of the Physics Department.
 - c) "Spectroscopies using an electron as the probe and their use in condensed matter" in the Workshop and training on Current Research Trends in Condensed Matter-Material Science organized by the Physics Department during 7-8 March 2014.
 - d) A talk on conceiving and operating the International Research Staff Exchange Scheme (IRSES) type network (new name: RISE), individual post doctoral fellowship and other opportunities for the benefit of faculties and students, 2014.
 - e) "Fitting Calculations to Experiment: A 1001 ways to compare two curves", 2015.

45. List the teaching methods adopted by the faculty for different programmes.

A mix of power point slides and chalk-blackboard is now the common method of teaching by all faculty members of the department. Whenever power point slides are used, they are made available to the students immediately after the class. Some of the courses are taught over tele-presence across the three Indian campuses of BITS Pilani. Efforts are on to offer large classroom courses online using the MOOC (Massive Open Online Course) platform.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Every teacher prepares a course handout that is given to the students before the classes begin. The handout details the lecture-wise teaching plan, the complete evaluation scheme and the learning outcomes of each topic to be covered in the course. The instruction division of the institute, the head of the department and Student Faculty Council constantly monitor the strict adherence to the handout.

47. Highlight the participation of students and faculty in extension activities.

- a) Students of the department participate in the various extension activities of the Institute's student body by being part of NSS, Nirmaan organization etc. Such activities include teaching children of disadvantaged families in and around Pilani, financially supporting the education of such children, spreading health awareness in villages around Pilani, organizing blood donation camps etc.
- b) At BITS Pilani, and at our department, we make an attempt to reach out to our students and have a healthy environment conducive for learning. Following are some of the activities planned to foster a healthy interaction with students and to help students when they face academic/personal issues.

Counselling for Students by ACC – Students who score a CGPA below 4.0 (or have at least two E grades) fall under the purview of the Academic Counselling Board. The institute assigns one faculty counsellor from the ACC for each such student. The faculty counsellor meets students on a weekly basis, and tries to understand the cause of poor performance



and assists the student in planning his/her study routines so that the student can recover his/her bad performance. When necessary the faculty counsellor recommends the student to take help of professional counsellor for further help.

- c) *Cricket Matches* – The department organizes cricket matches between faculty and students on a regular basis, typically once every year.
- d) *Trips* – The faculty members and students go for one-day picnics, sometimes study tours to nearby places.

48. Give details of “beyond syllabus scholarly activities” of the department.

- The department regularly organizes seminars by both faculty and students, including invited speakers. The department celebrates the National Science Day every year by organizing quiz competitions and science lectures.
- The faculty members of the department regularly visit schools and colleges in and around Pilani to deliver inspiring lectures.
- The department celebrates the Research Scholars’ Day each year, in which, the research scholars of the department showcase their research achievements for the year.
- Students organize a 3-day academic week, comprising college level science exhibition, paper presentations and invited lectures by internationally acclaimed scientists and technocrats.
- The department houses an astronomical observatory that is equipped with two telescopes, a 6” refracting telescope, and an 11” Celestron's Schmidt-Cassegrain telescope which is a fully computerized telescope. The observatory has recently procured a CCD camera which can be used with the 11” telescope to obtain long-exposure, high quality images, of nebulae and star-clusters. These images are stored in computers, and later analyzed to obtain photometric magnitudes of stars. Students interested in observational astronomy become a part of a club known as the Astro-Club. At any point in time, there are 30-40 students in this club across different disciplines and years, and a faculty member of the physics department is appointed as the faculty-in-charge of the club. Under the guidance of the faculty members, the Astro-club makes a regular use of both the telescopes to observe celestial objects on a fortnightly basis. In addition, the following are the activities of the Astro-club.
- *Public Observation Sessions* - They conduct regular astronomical observation sessions (sky watch) for general public, i.e. entire BITS community of students and staff, twice during a semester.
- *Space Week Celebration* – During the world space week, October 4-11, the club organizes several talks by BITS faculty, experts from other places in India, and sometimes abroad (online talks) in addition to sky watch sessions for the public.
- *APOGEE* – During the technical festival of BITS Pilani, APOGEE, the club organizes telescope making workshop. The club purchases components of a telescope from a vendor in Delhi and participants work in teams to make 6” telescopes which participants take back home with themselves. The club also organizes sky-watch sessions for all participants from across the country during the APOGEE.



- **B5-Association:** All students and faculty are default members of B5 (Physics) Association at BITS Pilani. A certain students are selected as post-holders to plan and carry out different activities of the association. A faculty member of the department is appointed to oversee the activities of the association. Some of the yearly activities of the association are as follows:
- *APOGEE Projects* - The association invites entries for physics projects for participation in the BITS technical festival, APOGEE. It then requests a team of faculty from the department to select the good entries for the participation and then helps the individuals/teams in show-casing these projects during the festival.
- *Science Day* – The association celebrates Science Day every year on the February 28. An entire day consisting of various competitions including poster presentations, quizzes, essays, are organized for school children. Large number of schools in and around Pilani participates in these day long activities which conclude in prizes for the winners. In addition, talks by one or two BITS Pilani faculty from Science departments are organized for the participating school kids.
- *Teacher's Day Celebration* – Since last two years the association celebrates teacher's day for the physics faculty. A program including tributes to faculty, some games among the team consisting of faculty and students, are planned to felicitate the faculty.
- **From the current semester, the association is organizing two kinds of talk series:**
- *Summer Talks* – Many 3rd year students of physics go for summer internships to places in India and sometime abroad for some research experience. All 2nd year students do their 2-month Practice School I as a part of their curriculum requirement. The summer talks are delivered by the physics 3rd and 4th year students based on the work they do in their Practice School I, and summer internships, respectively for their junior students.
- *Faculty Research Introduction Talks* – These talks are proposed for students to have a clearer idea of the research interests of faculty. These are not intended to replace either the research seminars that happen in the department but are inaccessible to most undergraduate students, or the one-to-one interaction with faculty which only highly motivated students go for to learn about the research interests of faculty.
- **Academic Activities under ACC:** At BITS Pilani, we have an academic counselling cell (ACC), to counsel and help students who are facing academic and/or personal issues. The cell consists of about 25 faculty members, about 15 student members, and two professional counsellors who visit the Pilani campus on a monthly basis such that every fortnight we have one professional counsellor on campus for 4 days. The founding chairman of this cell is a physics faculty, and at every point in time, a few physics faculty are part of the ACC.
- **Remedial Classes** – For the first year students coming from Hindi medium schools, or for those having difficulty in coping with the learning environment at BITS Pilani, the ACC organizes remedial classes in the late evening hours or on Sundays with the help of faculty and student members of the ACC.
- **Academic Activity under Embryo Club:** The Embryo Club is a forum for on-line, live and interactive lectures, run by students and faculties of BITS-Pilani. It aims to foster strong collaboration of BITS students and BITS faculty with the alumni and friends of BITS



Pilani. The club aims to give students an exposure to the cutting edge research areas through lecture series and collaborative projects. The students also get an opportunity to network with Alumni and friends of BITS, who are reputed academicians and industry leaders. Under a highly ambitious project, BITS Connect 2.0, BITS has acquired state of the art telepresence solutions across all campuses. Following are some of the physics talks organized by the Embryo Club during the last year:

- **Graphene** — An exciting two-dimensional material for science and technology by Dr. Mandar Deshmukh, TIFR, India (April 2014)
- **Physics For You** by Henry Reich, Creator of educational videos, Minute Physics available via YouTube, USA (August 2014)
- **3D Printing with Atoms: An Impossible (or just an Improbable) Dream** by Dr Philip Moriarity, The School of Physics and Astronomy, University of Nottingham (September 2014)
- **Search For Extraterrestrial Life** by Prof. Wen-Ping Chen, National Central University, Taiwan (October 2014)
- **Exploring Solar System in search of Life and Elusive Material in the 21st century** by Dr. Chaitanya Giri, Max Planck Institute for Solar System Research, Germany (Feb 2015) .*The information about lectures arranged (year-wise) can be found at the website of the club: <http://embryo.bits-pilani.ac.in/>*

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Recently the department and its programmes were reviewed/assessed by an institute-appointed external committee of experts. The curriculum of the department is going to be reviewed by an external committee soon.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The department has a thriving research programme with several funded research projects. The faculty of the department regularly publish their research output in reputed journals.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department

Strengths:

1. **Teaching:** Teaching has always been the strength of BITS Pilani since inception and Physics department has always been recognized for its awe inspiring teachers. This has reflected in excellent feedback that many members of the departments have received. Departmental teaching has also received a word of praise from external committee of experts who had been called to review the department.
2. **Student mentorship:** BITS being a residential campus, the issues concerning student campus life have to be dealt with enough care and concern. Physics department has always provided excellent mentorship to the students all through. Physics department has given



wardens, chief warden, members of academic counselling cell, student welfare division, members of disciplinary committee as well as founding convener of Academic Counselling Cell. The department is known to be extremely student friendly.

3. **Institutional Contribution:** In a continuous effort towards up-gradation and innovation in academic and institutional reforms BITS Pilani has embarked upon two major missions – mission 2012 and mission 2015. Members of Physics department have played key roles in various task-forces and imperatives in the areas of counselling, curriculum redesign, performance appraisal, journal classification and quantification, and establishment of a Teaching Learning Center.
4. **Mix of youth and experience:** With an average age of around 42 the department has an ideal mix of youth and experience with people from excellent academic background from reputed universities and research institutes from India and abroad.

Weakness:

1. Research output though steadily rising is not commensurate with the background and potential of the members. This is in part due to the fact that until recently major focus had been on teaching. Attention towards research has been steadily rising and we have delivered very good results.
2. Since we have been relatively late entrant in the research scenario it will take us time to attract best PhD students for our PhD program. We have seen the quality of input to our PhD program steadily rising.

Opportunities:

1. Research output though steadily rising presents lot of opportunities for growth. We can expand our national and international collaboration by availing professional development fund offered by the institute as also avail the sabbatical leave and university and industry immersion opportunity to expand the scope of research.
2. BITS is largely known as an engineering institute. By organizing seminars, workshops, schools and conferences we can enhance the visibility of Physics department both national and internationally. We have been regularly organizing workshops and major schools and conferences at our Pilani campus.
3. We have excellent teachers who are capable of writing international standard books. This area presents an opportunity of growth.

Challenges:

1. New DST regulations require private institute to share 50% of the support in DST-FIST scheme. Our institute has so far been unflinching in its support but this will obviously affect institutional planning in future.
2. Pilani's coordinates, climate, and opportunities (medical, social, educational, and professional) will always affect recruitment and retention of faculties, inviting experts and collaborators, as also getting services, supplies, and repairs done in time.
3. With large number of new IITs and IISERS we must deliver better quality education and research in order to attract PhD candidates.



52. Future plans of the department.

a) Teaching:

- (i) Our curriculum is due for a review very soon. We will implement the recommendations.
- (ii) Switch towards some modern way of evaluation in multi-section courses.
- (iii) Introduction of some new courses based on contemporary research topics.
- (iv) To explore new dimensions in teaching and learning, like exploring the online platform MOOC. Department would like to contribute significantly for identified courses to be run on these platforms.
- (v) Focus to improve the faculty-student interactions.

b) Research:

- (i) To generate more funding from different national and international funding agencies in order to strengthen the existing Ph.D. program.
- (ii) Scale up of research in terms of PhD students, research projects and multidisciplinary and multi-institutional collaboration.

c) New Programs:

- (i) Strengthen our existing programs; M.Sc. (Hons) and Ph.D.
- (ii) B.E (Hons) in Engineering Physics
- (iii) Minor in Physics: First degree students of BITS, other than physics students, will be eligible to opt for a minor in physics in addition to their major degree program.
- (iv) M.Sc. in Physics with B.Sc. input.

d) Infrastructure:

- (i) To strengthen the existing undergraduate and research labs.
- (ii) Recruitment of sufficient lab technical staff so that they could maintain/repair the instruments time to time effectively.
- (iii) To strengthen our teaching and research infrastructure using the BITS as well as external agency funding through projects.
- (iv) To develop some advanced research labs and high power computing facility.

53. Any other information regarding your department which you would like to include.

The department plays an important role in the institute, as physics provides a strong link between science and engineering. In this role, the department contributes substantially in teaching the courses of other programmes and departments of the institute. Here we list about our research activities not covered in any of the above items.

List of invited talks given in Conference/Symposium/Workshop/School/ etc:

- Dr. Amol Holkundkar gave an invited talk “Proton acceleration by circularly polarized travelling electromagnetic wave” at the Bhabha Atomic Research Centre, Mumbai on 8th July 2013.



- Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in the conference on Quantum Information Processing and Application, Harishchandra Research Institute, Allahabad, India, 2-8 December, 2013
- Dr. Jayendra N Bandyopadhyay has delivered Colloquium in Centre for Excellence in Basic Sciences, Mumbai Univ., Mumbai, India, 19th February, 2013.
- Dr. Jayendra N Bandyopadhyay has delivered prestigious Physics Colloquium on “Quantum Coherence and Biology” in Bhaba Atomic Research Centre, Trombay, Mumbai, India, 18th February, 2013.
- Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in the International Workshop on Quantum Biology, Indian Institute of Technology, Jodhpur, India, 25-27 January, 2013.
- Dr. Jayendra N Bandyopadhyay has delivered an invited lecture in International Conference on Quantum Information and Quantum Computing, Indian Institute of Science, Bangalore, India, 6-11 January, 2013.
- Dr Jayendra N Bandyopadhyay delivered an invited lecture in a conference on "Current Trends in Condensed Matter Physics", organized by Institute of Physics, Bhubaneswar, 19-22 February, 2015.
- Dr Jayendra N Bandyopadhyay delivered a series of lectures on "Hamiltonian Chaos" in SERC School on Nonlinear Dynamics 2014, held at Central University of Rajasthan, Ajmer, 1-20 December.
- Dr RK Gupta has delivered an invited talk in Workshop on Indigenously Built Low Cost SPR Instrument held at Delhi University on 8th May 2014. The title of the presentation was Development of surface plasmon resonance instrument at BITS Pilani.
- Dr Manjuladevi V has delivered an invited talk in International Workshop in Soft Chemistry held at Raman Research Institute, Bangalore from 9-11 Nov 2011.
- Dr RK Gupta has delivered an invited talk titled as “ Surface pressure induced nanostructure formation in Langmuir-Blodgett films of TCQ based mesogen” in International Workshop in Soft Chemistry held at Raman Research Institute, Bangalore from 9-11 Nov 2011.
- Dr. Rakesh Choubisa delivered a talk on "Electron impact coincidence (e, 3e) processes : Perspectives and Prospects" at the Institute of Physics, University of Rennes 1 (France) on 3 July, 2014.
- Dr. Rakesh Choubisa delivered an invited talk on “Relativistic K-shell (e, 3e) process on atoms” at the DAE Symposium on Atomic, Molecular and Optical Physics held at Karnatak University, Dharwad, 22-25 Feb. 2011.
- Dr. Rakesh Choubisa delivered a series of lectures on “Electron-Atom Collision (ionization processes) in “DST-SERC School on Theoretical Techniques in Atomic and Molecular Collision Physics” held at BITS, Pilani: Pilani Campus during 10-18 January, 2011.
- Dr. D. D Pant delivered an invited talk on “Photophysics of Fluorescent Molecules at Surfaces and Interfaces” in ‘National Conference on Condensed Matter Physics’, February 24-25, **2012** at BITS Pilani, Pilani.
- Dr. D. D Pant delivered an invited talk on "Photophysics at the Surfaces of Dye Sensitized Semiconducting Nanoparticles: Solvation Dynamics and Non-linear Optics” in National



Conference on 'Dye Sensitized Solar Cells', March 01-3, **2012**, at Jaipur Engineering Institute, Jaipur.

- Dr. D. D Pant delivered an invited talk on "Solvent Effects on the Absorption and Fluorescence Spectra of Quinine Sulphate: Estimation of Ground and Excited State Dipole Moments", National Conference on Emerging Trends of Research in Materials Science, Nov.12-13, **2011**, Swami Keshvanand Institute of Technology, management and Gramothan, Jaipur.
- Prof. Anshuman Dalvi delivered invited talk in 9th national conference on solid state ionics at Jaypee University Noida during 19th to 22nd december 2011.. Title of his talk was, "An understanding of thermal stability in superionic glasses using differential scanning calorimetry and electrical conductivity-temperature cycles"
- Prof. Anshuman Dalvi delivered invited talk in 10th national conference on solid state ionics at IIT Kharagpur during 23-25th December 2013. Title of his talk was, "Fast ionic glass-ceramic composites for solid state ionic devices: an overview"
- Prof. Anshuman Dalvi delivered invited talk in MNIT Jaipur in March 2014 in a short term course on materials characterization during June 18-22, 2013. The title of his talk was, "Thermal characterization of materials: A case study on superionic glasses"
- Prof. Anshuman Dalvi delivered invited talk in MINO-2013 national conference in Vivekananda Global University on "Solid State Lithium ion batteries: Trends and challenges" on 19th August, 2013.
- Prof. Anshuman Dalvi delivered invited talk in MINO-2015 a national conference in Vivekananda Global University on, "Batteries for high temperature and low dimensional applications: achievements and challenges" on 20th March 2015
- Prof. Anshuman Dalvi delivered invited lecture in Physics department MNIT Jaipur on 26th November 2014 on "superionic conductors"
- Prof. Anshuman Dalvi delivered invited lecture in INSPIRE Camp in Center for development of Physics education (CDPE) at Rajasthan University Jaipur during February 2013 on, "science in India: glorious past and challenges".
- Dr. Rishikesh Vaidya delivered a colloquium at IIT Gandhinagar on "Demystifying the God Particle: Physics of Higgs Boson" on April 4, 2013.
- Dr. Navin Singh has delivered an invited lecture in "Conference on Nonlinear Systems and Dynamics (CNSD)", held at IIT Indore, 11-14 December, 2013.
- Dr. Navin Singh has delivered an invited lecture on "Thermodynamics of Unzipping of DNA" in II National Conference on Micro and Nano Electronic Systems and Devices (MINO-2013), held at Vivekananda Institute of Technology, Jaipur, 8-9 August, 2013.
- Dr. Navin Singh delivered an invited talk on "The Biopolymers: Future of Nanotechnology" in MINO-2015 a national conference in Vivekananda Global University on 20th March 2015.
- Dr. Navin Singh delivered an invited lecture on "Physics of DNA" in the INSPIRE Camp in Center for development of Physics education (CDPE) at Rajasthan University Jaipur during 30-03-2013.



- Dr. Navin Singh delivered an invited lecture on “A simple model for DNA unzipping” in a workshop on Physics of DNA at Department of Physics, Banaras Hindu University, Varanasi during 12-15 August 2010.

Conferences attended/papers presented (oral/poster):

- In Silico Study of Electron Ionization of Confined 2D Quantum Dot”, Munendra Jain and Rakesh Choubisa, oral presentation in WHCI 2012 held at TIFR, Mumbai, 28-31, March, 2012.
- Relativistic inner-shell double ionization of Ca, Zn, Ag and Xe atoms”, Rakesh Choubisa and Munendra Jain, poster presentation in WHCI 2012 held at TIFR, Mumbai, 28- 31 March, 2012.
- Spin dependent effects in the relativistic K-shell (e, 3e) processes on heavy atoms”, Rakesh Choubisa, poster presentation in the NCAP held at Physics Department, IIT, Roorkee. on 25-26 Feb., 2012.
- Sunita Joshi and Dr. D. D. Pant contributed a Poster paper entitled “Photophysics of Quinine Sulphate Dication in Micellar Environments”, in National conference on Condensed Matter Physics, February 24-25, 2012 at BITS Pilani, Pilani, presented by Sunita Joshi.
- Dr. V. Manjuladevi, Mr. Jitendra Kumar and Dr. Raj Kumar Gupta, contributed a poster presentation entitled “Effect of Functionalized CNT on Nematic anchoring”, in the 24th International Liquid Crystal Conference, held in Mainz Germany, August 2012. Dr. V. Manjuladevi presented it.
- Dr. Raj Kumar Gupta, Mr. C. Karthik, and Dr. V. Manjuladevi, contributed an oral presentation entitled "TriCycloquinazoline based discotic liquid crystal at air - water and air-solid interfaces", in the 24th International Liquid Crystal Conference, held in Mainz Germany, August 2012. It was presented by Dr. Raj Kumar Gupta.
- Amar Singh and Navin Singh contributed a paper entitled “Stabilization of dsDNA molecule with salt concentration of solution”, in National conference on “Condensed Matter Physics 2012”, held at Birla Institute of Technology & Science, Pilani, February 24-25, 2012. Poster was presented by Mr. Amar Singh
- Amar Singh, Bhaskar Mittal and Navin Singh contributed a paper entitled “Force Induced unzipping of dsDNA: The solvent effect”, in a conference on “Condensed Matter days 2012”, held at Birla Institute of Technology, Mesra, Ranchi, August 28-30, 2012. Poster was presented by Mr. Amar Singh.
- Dr. Navin Singh gave a talk on “Probability analysis of opening of 106th conference on Statistical Mechanics held at Rutgers State University, Piscataway, NJ, USA, 18-20 December, 2011.
- Dr. Tapomoy Guha Sarkar presented a paper at the conference “Astrophysical Surveys Symposium” organized by ICTS and Tata Institute of Fundamental Research (Mumbai) in December 2012.
- Dr. Tapomoy Guha Sarkar presented a paper entitled “Cosmology using the neutral IGM” at Jawaharlal Nehru University (JNU), New Delhi, in December 2013.



- Dr. Amol Holkundkar presented a paper entitled “Investigation of neutron generation in laser-cluster interaction” at National Laser Symposium - 22 organized by DAE-BRNS at Manipal Institute of Technology from 8th to 11th Jan 2014.
- Dr. Madhukar Mishra presented a paper entitled "J/psi Suppression in QGP under colour screening scenario at SPS, RHIC and LHC energies" in the XX DAE-BRNS High Energy Physics Symposium - 2013 held at Visva-Bharati University, Shantiniketan, West Bengal, during 13-18 Jan, 2013.
- Munendra Jain and Rakesh Choubisa contributed a paper on “Relativistic distorted wave Born approximation (rDWBA) model for ionization of Zn (001) surfaces” at XXVIII International conference on Photonic, Electronic and Atomic Collisions, which was held at Lanzhou (China) during 24-30 July, 2013. Poster was presented by Mr. Munendra Jain.
- Dr. Rishikesh Vaidya gave an invited review talk on “EDMs of particles, hadrons and atoms” at the “International Workshop on Parity and CP Violation” (PCPV) held at Fountain resort Hotel, Mahabaleshwar, during February 18-23, 2013.
- Dr. Rishikesh Vaidya presented a paper “Higgs to di-photon decay rate in Supersymmetry without R-parity” at the “19th International Symposium Particles Strings and Cosmology” held at the GIS Convention Center Taipei, during November 20-26, 2013.
- Dr. Rishikesh Vaidya gave a talk on “Higgs to gamma-gamma in Supersymmetry” at the DAE Symposium in High Energy Physics, held at IIT Guwahati, during December 8-13, 2014.
- Tej Varma Y and D. D. Pant contributed a Paper ‘Steady state and Time resolved fluorescence study of 6-methoxyquinoline monocation: Effect of micellar charge on photophysics’. 7th International conference on Materials for Advance Technologies: ICMAT 2013 , SUNTEC Singapore. Presented by Tej Varma.
- Sunita Joshi, Tej Varma Y and D. D. Pant contributed a paper ‘Dynamic Fluorescence Quenching of Quinine Sulfate Dication by Chloride Ion in Ionic and Neutral Micellar Environments. SOLID STATE PHYSICS: Proceedings of the 58th DAE Solid State Physics Symposium 2013. Patiala.
- Sunita Joshi and D. D. Pant contributed a paper ‘Solvatochromic study of quinidine: Determination of ground and excited state dipole moments’ International Conference on Recent Trends in Applied Physics and Material Science, RAM 2013, Bikaner.
- Tej Varma Y and D. D. Pant. contributed a paper ‘Estimation of Ground and excited state dipole moments of 6-Methoxyquinoline from Solvatochromic Effect on Absorption and Fluorescence Spectra” International Conference on Recent Trends in Applied Physics and Material Science , RAM 2013, Bikaner.
- Subhashis Gangopadhyay presented a paper entitled "Evolution of Ge quantum dots on clean and H the nanopatterned Si(110) surface during annealing: a STM investigation", at the “100 Indian Science Congress”, organised by University of Calcutta, Kolkata, during January 3-7, 2013.
- Subhashis Gangopadhyay contributed a paper entitled "Conformational and Orientational Ordering in 2D Superlattices of Brominated Porphyrins", presented in “Interdisciplinary Surface Science Conference (ISSC-19)”, held at East Midlands Conference Centre, Nottingham, UK, during March 3-7, 2013.



- Sindhu S gave an invited talk in National conference on Condensed Matter Physics, BITS - Pilani, Feb 24-24 2012
- Kapil Dhaka presented work (oral) on "Shell magnetism in Icosahedral Cr@Ge 10 superatom" by Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, in "International Conference in Nanoscience and Nanotechnology, ICNN -2013" held at BBAU, Lucknow, during 18-20 Nov 2013.
- Kapil Dhaka presented (poster) on "Shell formalism in semiconductor based magnetic superatom" by Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, in "International E-Workshop on Computational Condensed Matter Physics and Materials Science, IWCCMP-2013" IITM, Gwalior, during 27-29 Nov, 2013.
- Kapil Dhaka presented (poster) on "Magnetic behavior in Cr₂@Gen (1≤n≤12) Clusters: A Density Functional Investigation" by Kapil Dhaka, Ravi Trivedi and Debashis Bandyopadhyay, in "The 58 DAE Solid State Physics Symposium (DAE-SSPS-2013)" at Thapar University, Patiala during December 17-21, 2013.
- Kaushar Vaidya presented (oral) her work, "Optical Spectroscopy of X-ray Sources in the Carina Nebula" at the Workshop on "Current Trends in Near Infrared Astronomy in India" held at TIFR Balloon Facility, Hyderabad, during November 25 – 27, 2014.
- Biswanath Layek presented (oral) his work, "Probing dynamics of phase transitions occurring inside a pulsar" in XXI DAE-BRNS Symposium held at IIT, Guwahati during December 8 - 12 , 2014 .
- Biswanath Layek presented (poster) entitled, "Probing dynamics of phase transitions occurring inside a pulsar" in International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP), held at VECC, Kolkata during February 2 - 6, 2015.
- Madhukar Mishra presented (oral) his work, "Upsilon suppression at LHC energy based on temperature dependent formation Time" in XXI DAE-BRNS Symposium held at IIT, Guwahati during December 8 - 12, 2014.
- Excited State relaxation processes of fluorescent molecules in nano-size ionic and neutral micellar systems. 5th International Colloidal Conference, June 21-24, 2015, organized by ELSEVIER, Amsterdam, Netherlands.
- Interaction of 6-Methoxyquinoline with ionic and neutral surfactants; A time-resolved fluorescence study, at International Conference on Luminescence (ICL), July 13-18, 2014. Worclaw, Poland. Presented by Tej Varma
- Rakesh Choubisa presented a paper on "Relativistic electron impact (e, (3-1)e) cross sections for atoms" in the International Conference on Many Particle Spectroscopy on Atoms, Molecules, Clusters and Surfaces held at Université de Lorraine, Metz (France) during 16-18 July, 2014.
- **(C) Session Chaired in Conference:**
- Prof. Rakesh Choubisa chaired a scientific session in the National Conference on Advances in Physics (NCAP) held at Physics Department, IIT, Roorkee on 25-26 February, 2012.
- Dr. (Late) C.B. Das chaired a session in DAE symposium held at Birla Institute of Technology & Science, Pilani, December, 2010.



Pilani Campus: Evaluative Report of the Department PHARMACY

1. **Name of the Department:** Department of Pharmacy
2. **Year of establishment of the Department:** 1950
3. **Is the Department part of a School/Faculty of the university?:**
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.):**
 - **On-Campus**
 - B. Pharmacy (Hons).
 - M. Pharmacy (M. Pharma. Pharmacy, M. Pharma. Pharmacy-Pharmaceutics, M. Pharma. Pharmacy-Pharmaceutical Chemistry).
 - Master of Public Health.
 - Ph. D
 - **Off-Campus**
 - M. Tech - Pharmaceutical Operations and Management (Cipla Mumbai).
 - M.S - Pharmaceutical Operations and Management (Strides Arcolab, Bangalore, Wockhardt Ltd, Aurangabad and Lupin Mumbai).
 - Ph. D (Torrent Research Centre, Janssen Pharmaceuticals, Lubrizol, Godrej, Vergo Pharma, Kohinoor hospitals, Dr. Reddy's Laboratory)
5. **Interdisciplinary programmes and departments involved:**
Master of Public Health (Collaboration with Department of Biological Sciences)
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**

S. No	WILP Program with Industry	Course Name (Courses offered by Department of Pharmacy)
1.	Lupin Pharmaceuticals	Pharma Process Development and Scale Up
2.		Advanced Pharmaceutical Technology
3.		Quality Assurance & Regulatory Affairs
4.		Pharmaceutical Administration and Management
5.	Cipla Pharmaceuticals	Advanced Pharmaceutical Technology
6.		Intellectual Property Rights and Pharmaceuticals
7.		Quality Assurance & Regulatory Affairs
8.		Advanced Physical Pharmaceutics
9.		Dosage Form Design
10.		Pharmaceutical Administration and Management
11.	Wockhardt Ltd	Pharma Process Development and Scale Up
12.		Advanced Pharmaceutical Technology



13.		Quality Assurance & Regulatory Affairs
14.		Pharmaceutical Administration and Management
15.		Dosage Form Design
16.	Strides Arcolab	Dosage Form Design
17.		Disinfection and Sterilization
18.		Quality Assurance & Regulatory Affairs
19.		Advanced Pharmacology
20.		Modern Analytical Techniques

7. **Details of programmes discontinued, if any, with reasons:** NIL

8. **Examination System:** Semester and choice based credit system.

9. **Participation of the department in the courses offered by other departments:**

- ✓ BITSF215 Application of BioMedical Instrumentation Techniques in Health Care (Mechanical Engineering).
- ✓ BITS C467 Bioethics and Biosafety as common open elective for other disciplines as well.

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others):**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	03	03
Associate Professors		01	01
Asst. Professors		11	08
Others		04	04

Note**: The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

11. **Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance:**

#	Name	Qualification	Designation	Specialization	No of Years Experience	No. of Ph. D students Guided
1	Dr. R.N. Saha	Ph. D	Senior Professor	Pharmaceutics	35 years	10
2	Dr. R.P. Pareek	MD	Professor	Medicine and Therapeutics	30 years	1
3	Dr. R. Mahesh	Ph. D	Professor	Pharmaceutical Chemistry and Neuro Pharmacology	26 years	11



4	Dr. Hemant R. Jadhav	Ph. D	Associate Professor	Pharmaceutical Chemistry	11 Years	8
5	Dr. S. Murugesan	Ph. D	Assistant Professor	Pharmaceutical Chemistry	10 Years	2
6	Dr. Rajiv Taliyan	Ph. D	Assistant Professor	Pharmacology and Toxicology	9 Years	2
7	<i>Dr. Anil Gaikwad</i>	Ph. D	Assistant Professor	Pharmacology and Toxicology	4 Years	4
8	<i>Dr. Atish Paul</i>	Ph. D	Assistant Professor	Phytochemistry	5 Years	1
9	Dr. Anil Jindal	Ph. D	Assistant Professor	Pharmaceutics	2 years	0
10	Dr. Deepak Chitkara	Ph. D	Assistant Professor	Pharmaceutics	2 years	0
11	Dr. Sunil K Dubey	Ph. D	Assistant Professor	Pharmaceutical Analysis	6 years	0
12	Dr. Anupama Mittal	Ph. D	Assistant Professor	Pharmaceutics	2 years	0
13	Mr. M.M. Pandey	M. Pharm	Lecturer	Pharmaceutical Biotechnology	12 years	0
14	Ms. Priti Jain	M. Pharm	Lecturer	Pharmaceutical Analysis	6 Years	0
15	Mr. Mahaveer Singh	M. Pharm	Lecturer	Pharmaceutical Chemistry	6 years	0
16	Ms. Archana K Kakkar	M. Pharm	Lecturer	Pharmaceutics	4 Years	0
17	Bharathi R	ME	Assistant Professor	Pharmacology	12 Years	0

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors: Nil

13. Percentage of classes taken by temporary faculty – programme-wise information: Nil

14. Programme-wise Student Teacher Ratio:

Program	Ratio
On Campus Programmes	
B. Pharmacy	11:1
M. Pharm (Pharmacy)	2.4:1
M. Pharm (Pharmaceutics)	3.31: 1
M. Pharm (Pharmaceutical Chemistry)	1.93:1
Off Campus Programmes	
M. Tech - Pharmaceutical Operations and Management (Cipla, Mumbai)	13: 1
M.S - Pharmaceutical Operations and Management (Lupin, Mumbai, Wockhardt Ltd)	

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual Number:

Sr No	Type of Staff	Sanctioned	Filled	Actual number
1	Laboratory Technician		1	1
2	Administrative		1	1
3	Peon		1	1
4	Store Keeper		1	1
5	Laboratory Assistant		5	5



6	Senior Veterinary In-charge, Central Animal House		1	1
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16. **Research thrust areas as recognized by major funding agencies:**

- ✓ Pharmaceutics and Pharmacokinetics
- ✓ Pharmaceutical Chemistry, Natural Drugs and Phytochemistry
- ✓ Pharmacology and Toxicology
- ✓ Pharmaceutical Analysis and Quality Assurance
- ✓ Clinical Research and Clinical Pharmacy

17. **Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise:**

a) Completed Projects:

#	Project Title	Principal Investigator	Agency	Sanction (Rs.) (Lakh)
1	Evaluation of Anti-Diabetic Foot Cream	Dr. R. P. Pareek	TTK LIG Ltd., Chennai	3.00
2	Optimization of extraction process of sennosides	Prof. R.N. Saha	SPIC, Alwar	2.50
3	Optimization of up-gradation process of extracted products	Prof. R.N. Saha	SPIC, Alwar	2.50
4	Development of stable formulation for selected combination drugs	Prof. R.N. Saha	IPCA Labs. Mumbai	10.00
5	Development of aqueous parental formulation of a selected drug	Prof. R.N. Saha	IPCA Labs. Mumbai	10.00
6	Verifying the structural evidence for presence of Sennosides	Prof. Hemant R. Jadhav	SPIC, Alwar	0.5
7	Novel Neuropharmacological Agents for the Treatment of Depression, Anxiety, Cognitive Dysfunction and CCIE: Design, Synthesis and Screening of Potential Serotonergic Modulator	Prof. R. Mahesh	ICMR	31.00
8	Design and Synthesis of Novel Agents for the Management of Rheumatoid Arthritis	Prof. Hemant R. Jadhav	UGC Major	8.35
9	Design and Synthesis of Novel Agents for the Treatment of Rheumatoid Arthritis	Prof. Hemant R. Jadhav	DST	19.03
10	Synthesis and pharmacological evaluation of novel phosphodiesterase- 4 inhibitors for their anti-depressant and anxiolytic potential	Prof. R. Mahesh	DBT	51.69
11	Design and synthesis of novel antimalarial agents	Prof. R. Mahesh	DBT sponsored Indo-Canadian joint research consortium- Phase-I	36.60
12	Development of analytical and bioanalytical methods for racemic drugs by HPLC and HPTLC for pharmacokinetic studies	Dr. Sunil Kumar Dubey	UGC Minor	1.80
13	Novel Quinoxaline carboxamides: design, synthesis and neuro-pharmacological evaluation	Prof. R. Mahesh	UGC	8.47



	as antidepressants, anxiolytics, and in the management of cancer chemotherapy-induced nausea and vomiting			
14	Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed-Dose Combination of Artesunate and Amodiaquine for Paediatrics	Prof. Shrikant Charde	UGC Major	10.25
15	Pharmaceutical Application Studies of Polymers Manufactured by BASF	Prof. Shrikant Charde	BASF	2.00
16	Studies on Cell Lines as Model for Predicting In Vitro Buccal Permeation of Various Classes of Drugs and its Co-relation with In Vivo Data	Prof. Shrikant Charde	DST-SERB	27.60
17	Design, Synthesis and Evaluation of Novel Tetrahydroquinoline & Tetrahydroisoquinoline analogs as anti-HIV agents	Dr. S. Murugesan	DST-SERB	24.75
18	Design, synthesis and evaluation of novel beta secretase inhibitors for the treatment of Alzheimer's disease	Ms. Priti Jain	UGC-Minor	2.00
19	Design and characterization of novel buccal drug delivery system of felodipine	Mr. Murali Pandey	UGC-Minor	1.70
20	Studies on design and characterization of multi-unit controlled release dosage formulations of milnacipran hydrochloride, in vitro release mechanism and in vivo pharmacokinetic parameters in animals	Mr. Gautam Singhavi	UGC-Minor	1.40
21	Exploring pharmacological potential of GSK-3 β and HDAC inhibitor alone and in combination in neurological disorders associated with metabolic syndrome	Dr. Rajeev Taliyan	UGC-start up	6.00
22	Design of Nasal Drug Delivery Systems for CNS Targeting	Prof. R. N. Saha	Torrent	20.00
23	A Clinical Validation Report of Vital track Telemedicine Solution	Prof. R. P. Pareek	Maestros Mediline Systems Limited, Mumbai	1.00
Total				282.14

b) Ongoing projects:

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs.in Lakh)
1.	Studies of Carbopols Use for Controlled Release and Other Uses by Extrusion and Spheronization Techniques	Prof. R.N. Saha	Lubrizol, USA	12.00
2.	Design and synthesis of novel anti malarial agents	Prof. R. Mahesh	DBT sponsored Indo-Canadian joint research consortium-Phase-II	21.00
3.	Exploring neuroprotective effect and molecular mechanisms of remote limb ischemic post conditioning	Dr. Rajeev Taliyan	DST-SERB	25.00



S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs.in Lakh)
	against brain stroke			
4.	Understanding the Epigenetic Regulation in modulating Inflammatory Response mediated by NF-kB through AT1 or AT2 receptor in Type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	DST SERB	22.219
5.	Esculetin a Therapeutic Intervention Targeted at Cardio-Renal Syndrome in Type 2 Diabetes	Dr. Gaikwad Anil Bhanudas	DST SERB	39.66
6.	Effect of Esculetin on Angiotensin II in rat thoracic aorta under hyperglycaemic and hyperinsulinaemic conditions	Dr. Gaikwad Anil Bhanudas	UGC-Major	13.43
Total				133.309

c) Total Grants received = Total of Completed Projects(a) + Total of ongoing projects(b)

c = 282.14 + 133.309 = **415.449 lakhs**

d) Projects sanctioned :

S.No.	Project Title	Principal Investigator	Agency
1	Combination delivery of small molecules and microRNA for treatment of locally advanced and metastatic breast cancer	Dr. Deepak Chitkara	SERB
2	Nano-formulation of lysofylline- fatty acid conjugate for effective treatment of diabetes	Dr. Anupama Mittal	SERB
3	Exploring The Antiobesity Potential of Selected Ayurvedic Medicinal Plants Using Pancreatic Lipase Inhibition Assay and Synergy Guided Fractionation Approach	Dr. Atish T Paul	SERB
4	Development of botanical based novel formulation with mosquito larvicidal action for Indian population	Dr. Atish T Paul	DST-SYST
5	Role of Histone Ubiquitination & Angiotensin Converting Enzyme 2 in the Development of Renal Fibrosis under Type I Diabetic Condition	Dr. Gaikwad Anil Bhanudas	CSIR

18. Inter-institutional collaborative projects and associated grants received:

a) **National collaboration:** Nil

b) **International collaboration:**

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs.in Lakh)
1	Design and synthesis of novel anti malarial agents	Prof. R. Mahesh	DBT sponsored Indo-Canadian joint research consortium-Phase-II	21.00

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:

- DST-FIST (Phase II): 135.00 Lakhs
- UGC-SAP (Phase II): 71.50 Lakhs

20. Research facility / centre with:

- **State recognition:** Nil
- **National recognition:** Central Animal Facility of BITS Pilani has been approved by CPCSEA, Govt. of India for breeding and keeping animals for research purpose.



- **International recognition:** Nil

21. **Special research laboratories sponsored by / created by industry or corporate bodies:** Nil

22. **Publications:**

#	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	172
2	Monographs	0
3	Chapters in Books	03
4	Edited Books	0
5	Books with ISBN with details of publishers	0
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	-
7	Citation Index – range / average	0-78
8	SNIP	0.151-3
9	SJR	0.104-75
10	Impact Factor – range/ average	0.2- 6.691/1.77
11	h-index	3 - 205/56.88
12	Conference presentations	146

a) Details of the publications as per the number give above:

Sr No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Chakka S. K, Kalamuddin M, Mundra S, Mahesh R, Malhotra P, Mohammed A, Kotra LP.	Identification of novel class of falcipain-2 inhibitors as potential antimalarial agents.	Bioorganic & Medicinal Chemistry, 9, 2221-40	International	2015
2	Gupta D, Mahesh R, Kurhe Y.	Effect of a novel 5-HT3 receptor antagonist 4i, in corticosterone-induced depression-like behavior and oxidative stress in mice.	Steroids, 96, 95-102	International	2015
3	Jindal A, Mahesh R, Bhatt S.	Type 4 phosphodiesterase enzyme inhibitor, rolipram rescues behavioral deficits in olfactory bulbectomy models of depression: Involvement of hypothalamic-pituitary-adrenal axis, cAMP signaling aspects and antioxidant defense system	Pharmacology Biochemistry and Behavior, 132, 20-32	International	2015



4	Kurhe Y, Mahesh R, Devadoss T	QCM-4, a 5-HT ₃ receptor antagonist ameliorates plasma HPA axis hyperactivity, leptin resistance and brain oxidative stress in depression and anxiety-like behavior in obese mice	Biochemical and Biophysical Research Communications, 1, 74-9	International	2015
5	Mundra S, Mahesh R.	Evaluation of novel 1-(4-(substituted)piperazin-1-yl)-2-(phenylamino)ethanone derivatives as Falcipain-2 inhibitors	Journal of Young Pharmacist, 2, 96-105	International	2015
6	Dhar AK, Mahesh R, Jindal A, Bhatt S.	Piperazine analogues of naphthyridine-3-carboxamides and indole-2-carboxamides: Novel 5-HT ₃ receptor antagonists with antidepressant like activity	Archive Der Pharmazie, 1, 34-45	International	2015
7	Mahesh R, Mundra S, Devadoss T	Design, synthesis and evaluation of 2-(4-(substituted benzoyl)-1,4-diazepan-1-yl)-N phenylacetamide derivatives as a new class of falcipain-2 inhibitors	Arabian Journal of Chemistry (Article in Press)	International	2014
8	Gupta D, Mahesh R, Kurhe Y	Ondansetron, a 5HT-3 receptor antagonist reverses depression and anxiety-like behavior in streptozotocin-induced diabetic mice: Possible implication of serotonergic system	European Journal of Pharmacology, 744, 59-66	International	2014
9	Dhar AK, Mahesh R, Jindal A, Devadoss T, Bhatt S	Design, Synthesis, and Pharmacological Evaluation of Novel 2-(4-substituted piperazin-1-yl)-1, 8 Naphthyridine 3-Carboxylic Acids as 5-HT ₃ Receptor Antagonists for the Management of Depression	Chemical Biology & Drug Design, 84(6), 721-31.	International	2014
10	Jindal A, Mahesh R, Bhatt S.	Etazolate, a Phosphodiesterase 4 enzyme inhibitor produces antidepressant-like effects by blocking the behavioral, biochemical, neurobiological deficits and histological abnormalities in hippocampus region caused by olfactory bulbectomy	Psychopharmacology, 232(3), 623-37	International	2014



11	Kurhe Y, Mahesh R, Gupta D, Devadoss T.	QCM-4, a serotonergic type 3 receptor modulator attenuates depression co-morbid with obesity in mice: An approach based on behavioral and biochemical investigations	European Journal of Pharmacology, 740, 611-8	International	2014
12	Kurhe Y, Mahesh R, Gupta D, Thangaraj D	Effect of (4a) a novel 5-HT ₃ receptor antagonist on chronic unpredictable mild stress induced depressive-like behavior in mice: an approach using behavioral tests battery.	Journal of Basic and Clinical Physiology and Pharmacology, 26(1), 25-33.	International	2014
13	Kurhe Y, Mahesh R, Gupta, D	Ondansetron attenuates depression co-morbid with obesity in obese mice subjected to chronic unpredictable mild stress; an approach using behavioral battery tests.	Metabolic Brain Disease, 29(3), 701-10	International	2014
14	Gupta D, Mahesh R, Kurhe Y, Thangaraj D, Prabhakar V, Kanade P	Antidepressant-like effects of 6z, a novel 5HT ₃ receptor antagonist in acute and chronic mouse models of depression.	Acta Pharmacologica Sinica, (19), 29-40	International	2014
15	Kurhe Y, Mahesh R, Gupta D.	Effect of a Selective Cyclooxygenase Type 2 Inhibitor Celecoxib on Depression Associated with Obesity in Mice: An Approach Using Behavioral Tests.	Neurochemical Research, 9(7), 1395-402	International	2014
16	Bhatt S, Mahesh R, Jindal A, Devadoss T	Protective effects of a novel 5-HT ₃ receptor antagonist, <i>N</i> -n-butyl-3-methoxy quinoxaline-2-carboxamide (6o) against chronic unpredictable mild stress-induced behavioral changes and biochemical alterations	Pharmacology Biochemistry Behaviour, 122, 234-9.	International	2014
17	Bhatt S, Mahesh R, Jindal A, Devadoss T	Neuropharmacological Effect of Novel 5-HT ₃ Receptor Antagonist, <i>N</i> -n-propyl-3-ethoxyquinoxaline-2-carboxamide (6n) on Chronic Unpredictable Mild Stress-Induced Molecular and Cellular Response: Behavioural and Biochemical Evidences.	Pharmacological Reports, 66(5), 804-10.	International	2014



18	Gupta D, Radhakrishnan M, Thangaraj D, Kurhe Y	Antidepressant and anti-anxiety like effects of 4i (3-Chloro-2-methylphenyl) quinoxalin-2-carboxamide), a novel 5-HT receptor antagonist in acute and chronic neurobehavioral rodent models.	European Journal of Pharmacology, 735, 59-67	International	2014
19	Gupta D, Radhakrishnan M, Kurhe Y.	Insulin reverses anxiety-like behavior evoked by streptozotocin-induced diabetes in mice.	Metabolic Brain Disease, 29(3), 737-46.	International	2014
20	Gupta D, Kurhe Y, Radhakrishnan M	Antidepressant effects of insulin in streptozotocin induced diabetic mice: Modulation of brain serotonin system	Physiology & behaviour, 129, 73-8	International	2014
21	Mahesh R, Dhar AK, Jindal A, Bhatt S.	Design, synthesis and evaluation of anti depressant activity of novel 2-methoxy 1, 8 naphthyridine 3-carboxamides as 5-HT ₃ receptor antagonists	Chemical Biology & Drug Design, 83(5), 583-91	International	2014
22	Bhatt S, Mahesh R, Jindal A, Devadoss T.	Neuro-pharmacological evaluation of structurally novel 5-hydroxytryptamine type 3 receptor antagonist, N-n-propyl-3-ethoxyquinoxaline-2-carboxamide (6n) for its anxiolytic potential	International Journal of Nutrition, Pharmacology, Neurological Diseases, 3, 383-387	International	2014
23	Kurhe Y, Mahesh R, Gupta D, Thangaraj D.	QCM-4 a novel 5-HT ₃ antagonist attenuates the behavioral and biochemical alterations on chronic unpredictable mild stress model of depression in Swiss albino mice	Journal of Pharmacy and Pharmacology, 66(1), 122-32.	International	2013
24	Jindal A, Mahesh R, Bhatt S.	Etazolate rescues behavioral deficits in chronic unpredictable stress model: Modulation of hypothalamic-pituitary-adrenal axis activity and brain-derived neurotrophic factor level	Neurochemistry International, 63(5), 465-75.	International	2013
25	Mahesh R, Dhar AK, Jindal A, Bhatt S	2-(4-substituted piperazin-1-yl)-1,8-naphthyridine-3-carboxylic acids: Novel 5-HT ₃ receptor antagonists with anxiolytic like activity in rodent behavioral models	Canadian Journal of Physiology and Pharmacology, 91(10), 848-54	International	2013



26	Gautam BK, Jindal A, Dhar AK, Mahesh R.	Antidepressant - Like Activity of 2-(4-phenylpiperazin-1-yl)-1, 8-naphthyridine-3-carboxylic acid (7a), a 5-HT ₃ Receptor Antagonist in Behaviour Based Rodent Models Evidence for the Involvement of Serotonergic System	Pharmacology Biochemistry & Behaviour, 109, 91-7	International	2013
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133	P Ashok, Cui-Lin Lu, S Chander, Y Zheng and S Murugesan	Design, synthesis and biological evaluation of 1-(thiophen-2-yl)-9H-pyrido[3,4-b]indole derivatives as anti-HIV agents	Chemical Biology and Drug Design, 19(15), 4134-38	International	2015
134	Subhash Chander, Ashok Penta, Sankaranarayana n Murugesan	Structure based virtual screening and docking studies for the identification of novel inhibitors against wild and drug resistance strains of HIV-1 RT	Medicinal Chemistry Research, 24(5), 1869-83	International	2015
135	Penta Ashok, Hiren Lathiya, Sankaranarayana n Murugesan	Manzamine alkaloids as antileishmanial agents - A review	European Journal of Medicinal Chemistry, 97, 928-36	International	2015
136	Penta Ashok, Hardik Sharma, Hiren Lathiya, Subhash Chander, Sankaranarayana	In-silico design and study of novel Piperazinyl β -carbolines as inhibitor of HIV-1 reverse transcriptase	Medicinal Chemistry Research, 24(2), 513-22	International	2015



	n Murugesan				
137	Penta Ashok, Subhash Chander, Hiren Lathiya, Hardik Sharma, Kriti Goyal, Sankaranarayana n Murugesan	De-novo design and in-silico studies of novel bis-arylpiperazine derivatives as non-nucleoside inhibitors of HIV-1 reverse transcriptase	Journal of Pharmaceutical Chemistry, 1(2), 22-27	International	2014
138	Penta Ashok, Swastika Ganguly and Sankaranarayana n Murugesan	Manzamine alkaloids: isolation, cytotoxicity, antimalarial activity and SAR studies	Drug Discovery Today, 19(11), 1781-91	International	2014
139	Ashok Penta, Subhash Chander, S. Ganguly, S. Murugesan	De novo design and in-silico studies of novel 1-phenyl-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acid derivatives as HIV-1 reverse transcriptase inhibitors	Medicinal Chemistry Research, 23(8), 3662-70	International	2014
140	Subhash Chander, Ashok Penta and Sankaranarayana n Murugesan	In-silico design and docking study of novel Tetrahydroquinoline derivatives as inhibitor of WT and mutant HIV-1 Reverse Transcriptase	Journal of Pharmacy Research, 24(2), 513-22	International	2014
141	P. Ashok, S. Ganguly and S. Murugesan	Review on In-Vitro anti-Malarial activity of Natural β -carboline alkaloids	Mini Reviews in Medicinal Chemistry, 13(12), 1778-91	International	2013
142	Ashok Penta, Swastika Ganguly and S Murugesan	Design and synthesis of Tetrahydrophthalimide derivatives as inhibitors of HIV-1 Reverse Transcriptase	Organic and Medicinal Chemistry Letters, 3(8), 1-8	International	2013
143	Ashok Penta, S. Ganguly and S. Murugesan	Design, Synthesis and Evaluation of 2-(1,3-dioxisoindolin-2-yl)-N-phenylacetamides as Inhibitors of Reverse Transcriptase,	Der Pharma Chemica, 5(4), 10-19	International	2013
144	Ashok Penta, Kakamanu Kishore Babu, Swastika Ganguly and Sankaranarayana	Lack of human immunodeficiency virus-1 integrase inhibitory activity of novel 3a, 4, 7, 7a-tetrahydro-1H-isoindole-1,3(2H)-dione derivatives	Journal of Pharmaceutical Negative Results, 4(1), 13-18	International	2013



	n Murugesan				
145	Ashok Penta, S. Ganguly and S. Murugesan	Design and Synthesis of 3a, 4, 7, 7a-Tetrahydro-1H-Isoindole-1, 3(2H)-diones as Inhibitors of HIV-1 Reverse Transcriptase	International Journal of Pharmacy & Pharmaceutical Sciences, 5(3), 659-64	International	2013
146	P. Ashok, Kakumanu Kishore Babu, S. Murugesan and S. Ganguly	Design and Docking studies of some novel 1-phenyl-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acids as inhibitors of Human Immunodeficiency virus type-1 reverse transcriptase	Asian Journal Chemistry, 24(12), 5857-60	International	2012
147	Sharma S and Taliyan R	Histone deacetylase inhibitor, Trichostatin A, improves learning and memory in high fat diet-induced cognitive deficits in mice	Journal of Molecular Neuroscience, 56(1), 1-11	International	2014
148	Sharma S and Taliyan R	Neuroprotective role of Indirubin-3'-monoxime, a GSK β inhibitor in high fat diet induced cognitive impairment in mice	Biochem Biophys Res Communications, 452(4), 1009-15	International	2014
149	Sharma S and Taliyan R	Synergistic effects of GSK-3 β and HDAC inhibitors in Intracerebroventricular Streptozotocin induced cognitive deficits in rats	Naunyn-Schim. Archives Pharmacology, 388(3), 337-49	International	2015
150	Sharma S and Taliyan R	Targeting Histone Deacetylases: A Novel Approach in Parkinson's Disease	Parkinson Disease, Volume 2015, http://dx.doi.org/10.1155/2015/303294	International	2015
151	Sharma S and Taliyan R	Beneficial effects of sodium butyrate in 6-OHDA induced neurotoxicity and behavioral abnormalities: Modulation of histone deacetylase activity	Behavioural Brain Research, 291, 306-304	International	2015
152	Sharma S and Taliyan R	Transcriptional dysregulation in Huntington's disease: The role of histone deacetylases	Pharmacological Research, 100, 157-69	International	2015
153	Sunil K Dubey, Manoj S Tomar, A.K. Patni, A.	Rapid, Sensitive and Validated Ultra-Performance Liquid Chromatography/Mass	E-Journal of Chemistry, 7(1), 25-36	National	2010



	Khuroo, Nageshwar R. Thudi, Simrit Reyar Tausif Monif	Spectrometric Method for the Determination of Fenofibric Acid and its Application to Human Pharmacokinetic Study			
154	Sunil Kumar Dubey, Sandeep Kumar, Rajeev J Mudakavi, Swapnil Deshpande, Akash Kumar Jain	A High Performance Liquid Chromatographic Method For Quantification Of Trandolapril Using Uv Spectrometric Detection	International Journal of Biomedical Research, 1(3), 133-140	International	2010
155	Sunil Kumar Dubey, Sandeep Kumar, Rajeev J Mudakavi, Swapnil Deshpande, Akash Kumar Jain	Development and Validation Of UV-Spectrophotometric Method For Determination of Enalapril Maleate	E-Journal of Chemistry Vol 1, No 4	National	2010
156	Sunil K Dubey, Manoj S Tomar, A.K. Patni, A. Khuroo, Nageshwar R. Thudi, Simrit Reyar Tausif Monif	Rapid, Sensitive and Validated Ultra-Performance Liquid Chromatography/Mass Spectrometric Method for the Determination of Fenofibric Acid and its Application to Human Pharmacokinetic Study	E-Journal of Chemistry, 7(1), 25-36	National	2010
157	Sunil Kumar Dubey, Sandeep Kumar, Rajeev J Mudakavi,	A High Performance Liquid Chromatographic Method For Quantification Of Trandolapril	International Journal of Biomedical Research, 1(3), 133-40	National	2010
158	Sunil Kumar Dubey, Sandeep Kumar, Rajeev J Mudakavi, Swapnil Deshpande, Akash Kumar Jain	Development and Validation of UV-Spectrophotometric Method For Determination of Enalapril Maleate	Advanced Research Journals, 1(4)	International	2010
159	Sunil Kumar Dubey, Abhinav Basia	cGMP requirements in Process Control	International Journal of Current Pharmaceutical Research, 3(4), 58-63	National	2011



160	Sunil K. Dubey, Amit Anand, Hemanth Jangala	Laboratory information and management system: A tool to increase laboratory productivity	Clinical Research and Regulatory Affairs, 29(2), 46-56	International	2012
161	Sunil K Dubey, Jangala Hemanth, R. N. Saha	Rapid and Sensitive TwoChannel RP-HPLC Method for Estimation of Ketorolac in Pharmaceuticals using Weighted Regression	Indian Journal of Pharmaceutical Science, 75, 89-93	National	2013
162	Sunil Kumar Dubey, R.N. Saha and S. Pasha	Rapid, Sensitive, Validated UltraPerformance Liquid Chromatography/Mass Spectrometric Method for determination of venlafaxine and its metabolite: Application to pharmacokinetic study	Journal of Pharmaceutical Analysis, 3(6), 466-71	International	2013
163	S. K. Dubey, A. Anand, R. N. Saha	Enantioselective Tissue Distribution of Ketorolac and its Enantiomers in Rats	Drug Research (Arzneimittelforschung), 65(8), 428-31	International	2014
164	Sunil K Dubey, Amit Anand, Ranendra N Saha	Stability indicating high performance thin layer chromatographic method for quantitation of venlafaxine in bulk and pharmaceutical dosage form	Drug Development and Therapeutics, 35, 499-50	National	2015
165	Sridhar SNC, Kumari S, Paul AT.	Diabetic Complications: A Natural Product Perspective	Pharmaceutical Crops, 5, 39-60	International	2014
166	M Singh, S Kumar	2D Quantitative Structure Activity Relationship Studies on Structurally Constrained Quinazoline Derivatives as Potent and Selective Histamine H3 Receptor Inverse Agonists	Asian Journal of Chemistry, 24(5), 2090-92	National	2012
167	M Singh, SG Kaskhedikar, G Singhvi, L Soni,	HPLC Estimation of Perindopril Erbumine in Tablet Dosage Form	Asian Journal of Chemistry, 23(9), 3909-11	National	2011
168	Mahaveer singh, Gautam singhvi	Review: in-vitro drug release characterization models	Int J Pharm Stud Res, 2(1), 77-84	National	2011



169	Ashish runthala. ankitash tylyani, Mahaveer singh	Phylogenetic Selection Guided Saccharomyces Cerevisiae S288c Glucose Fermentation Modeling	International Journal of Bioinformatics Research, 3(1), 178-84	National	2011
170	M Singh, G Singhvi, SG Kaskhedikar	Development of Fast Dispersible Tablets of Carvedilol: Effect of Functionality of Superdisintegrants	Research Journal of Pharmacy and Technology, 3(3), 942-44	National	2010
171	G Singhvi, M Singh, G Chaturvedi, S Sharma, K Yadav	Design and Evaluation of Taste Masked Fast Disintegrating Tablet of Racecadotril	Research Journal of Pharmacy and Technology, 3(4), 1050-52	National	2010
172	Ramagiri Taliyan R S	Neuroprotective effect of hydroxy safflor yellow A against cerebral ischemia-reperfusion injury in rats: putative role of mPTP	Journal of Basic and Clinical Physiology and Pharmacology. DOI: 10.1515/jbcpp-15- 0021.	International	2015

b) Details of the conferences attended and papers presmtd:

#	Authors	Title	Name of conference	Place	Date
1	Mahesh R, Pandey D, Pinky Sharma.	1(m- chlorophenyl) Pipirazine (mCPP) induces depressogenic- like behaviour in rodent by stimulating the neuronal 5-HT receptor as a potential rodents Anti-depressant assays	Pharmanext Conference	Jaipur, India	18-19 September 2010
2	Mahesh R, Bhatt S , Gautam B, Pandey D, Devadoss T.	Evaluation of novel 5-HT3 antagonist as a potential anti-depressant in comorbid condition	Pharmanext Conference	Jaipur, India	18-19 September 2010
3	Mahesh R, Gautam B, Pandey D, Bhatt S, Ramamoorthy R.	Hyposerotonergic consequences of parthenolide in a battery of rodents behavioural Assays of depression	Pharmanext Conference	Jaipur, India	18-19 September 2010
4	Mahesh R, Jindal A, Kurdekar A, Jhadav H, Bhatt S, Gautam BK, Pandey DK,	Evaluation of Anti-oxidant, Analgesic and Anti-inflammatory activity of Methanolic Bark extract of Atalantia monophylla	Indian Pharmacological Society Conference.	Hyderabad, India	14-16 December 2010
5	Mahesh R, Gumpally C, Bhatt S, Thangaraj Devadoss, Dilip Pandey, Gautam B, Ankur Jindal.	Evaluation of novel sertonergeric type-3 receptor antagonist quinoxalin-2- carboxylic acid derivative (QCT-22) for their antidepressant potential	Indian Pharmacological Society Conference	Hyderabad, India	14-16 December 2010
6	Mahesh R, Chaudhary S, Bhatt S, Devadoss T, Pandey D, Gautam B, Jindal	Preclinical evaluation of quinoxalin-2- carboxylic acid derivative (qct-16), a novel sertonergeric modulator for their anti-depressant potential	Indian Pharmacological Society Conference	Hyderabad, India	14-16 December 2010
7	Mahesh R, Modak	Novel quinoxaline derivative: a	Indian	Hyderabad,	14-16



	N, Bhatt S, Devadoss T, Pandey D, Gautam B, Jindal	potential anti depressant for treatment resistant depression	Pharmacological Society Conference	India	December 2010
8	Mahesh R, Bhatt S, Devadoss T, Gautam B, Soni P, Gumpally C, Jindal A, Pandey D.	pharmacological profiling of quinoxalin-2-carboxylic acid derivative (qcm-16), a novel serotonergic modulator for its anti-depressant potential	Indian Pharmacological Society Conference	Hyderabad, India.	14-16 December 2010
9	Mahesh R, Bhatt S, Devadoss T, Gautam B, Jindal A, Pandey D.	QCM-13(n-cyclohexyl-3-methoxyquinoxalin-2carboxamide) a novel antidepressant; pharmacological evaluation of the potential serotonin type 3 (5-HT3) receptor antagonist	Indian Pharmacological Society Conference	Hyderabad. India.	14-16 December 2010
10	Mahesh R, Pandey D, Sharma P.	1(m- chlorophenyl) Pipirazine (mCPP) induces depressogenic- like behaviour in rodent by stimulating the neuronal 5-HT receptor as a potential rodents Anti-depressant assays	Pharmanext Conference	Jaipur, India	18-19 September 2010
11	Mahesh R, Kumar B, Jindal A, Pandey D, Bhatt S, Devadoss T.	Antidepressant like activity of (4-phenylpiperazin-1-yl) (quinoxalin-3-yl) methanone (4a), a novel 5 HT3 receptor antagonist: An investigation in behaviour-based rodent models	Indian Pharmacological Society Conference	Manipal, Karnataka, India	19-21 December 2011
12	Mahesh R, Jindal A, Kumar B, Bhatt S, Pandey D.	Rolipram, a phosphodiesterase 4 (PDE4) enzyme inhibitor as a potential anti-depressant: An investigation using behavioral tests battery of depression	Indian Pharmacological Society Conference.	Manipal, Karnataka, India	19-21 December 2011
13	Mahesh R, Dhar A, Singh S, Jindal A, Sharma A, Bhatt S.	Evaluation of antianxiety like activity of 2-(4-phenylpiperazine-1-yl) 1,8-Naphthridine-3-carboxylic acid(7a) A serotonin type-3(5-HT3) receptor antagonist: An investigation using behavioural test battery of anxiety	Indian Pharmacological Society Conference	Manipal, Karnataka, India	19-21 December 2011
14	Mahesh R, Dhar A, Sharma A, Jindal A, Singh S, Kumar B.	Behavioral investigation on antidepressant like activity of 2-(4-phenylpiperazine-1-yl) 1,8-Naphthlidine-3-carboxylic acid(7a) A novel serotonin type-3(5-HT3) receptor antagonist: for comorbid depression with cancer chemotherapy induced nausea and vomiting(CINV)	Indian Pharmacological Society Conference	Manipal, Karnataka, India	19-21 December 2011
15	Mahesh R, Srinivasrao B, Devadoss T, Jindal A, Bhatt S, Kumar B.	Studies on the analgesic and anti-inflammatory activity of n-[2-(1h-indol-3-yl)ethyl]quinoxalin-2-caboxalicacid (qcf-20), a novel serotonin type-3 (5-ht3) receptor antagonist	Indian Pharmacological Society Conference	Manipal, Karnataka, India	19-21 December 2011
16	Bhatt S, Panjwani R, Devadoss T, Gautam	To evaluate a novel 5 HT3 receptor antagonist 3-Ethoxy-N-	APTICON	Moga, Punjab, India	7-9 October 2011



	BK, Jindal A, Mahesh R.	Propylquinoxaline-2-carboxamide (EPQC) for its anti-depressant and anxiolytic potential.			
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17	Gupta D, Mahesh R, Bhatt S, Devadoss T.	Pharmacological evaluation of novel serotonin type-3 (5HT3) receptor antagonist for comorbid depression and anxiety in rodent models of comorbid disorder	Indian Pharmaceutical Association Convention	Indore, India	19-20 February 2011
18	Gupta D, Mahesh R, Kurhe Y	Diabetes associated depression: ondansetron, as an antidepressant for streptozotocin induced diabetes associated depression in mice	Journal of Diabetes and Metabolism, Omics Group Conferences	Hyderabad, India.	24-26 September 2012
19	Gupta D, Mahesh R, Bhatt S, Devadoss T.	Antidepressant like activity of buspirone and role of HPA axis dysregulation in depression. National conference on pharmacy and pharmaceutical sciences-from bench to market	Pharmanext (AIPER)	Madhya Pradesh, India	28-29 April 2012
20	Mahesh R, Bhatt S, Panjawani R, Devadoss T, Jindal A.	Neuro-pharmacological evaluation of novel serotonin type-3 (5-HT3) receptor antagonists QCM-15, QCM-16, QCT-16 & QCT-22 (quinoxaline derivatives) for their anxiolytic potential	Indian Pharmaceutical Association Convention	Manipal, Karnataka, India	17-18 March 2012
21	Mahesh R, Mundra S, Devadoss T, Dhar AK, Sudali MV.	Design and synthesis of pyrimidine scaffold for their kinase inhibitor activity	National conference of Pharmanext	Aligarh, UP, India	19-20 February 2012
22	Mahesh R, Dhar AK, Jindal A, Muthu VS, Mundra S.	Design, synthesis and pharmacological evaluation of Novel 2-(4-substituted piperazine 1-yl)-1,8-naphthyridine 3-carboxylic acids as 5-HT3 receptor antagonists for the management of depression	Indian Pharmaceutical Association Convention	Manipal, Karnataka, India	17-18 March 2012
23	Mahesh R, Mundra S, Dhar AK, Sudali MV.	Design and synthesis and screening of falcipain-2 Inhibitor's	National conference "Molecular Diagnostics: Challenges vis-à-vis Growth Potential"- Organized by Department of Biotechnology and confederation of Indian industries	Delhi, India	8 June 2012
24	Mahesh R, Sudali MV, Murugesan S, Dhar AK, Mundra S, Jindal A.	Design and docking study of 4-benzyl-3-oxo-3,4-dihydroquinoxaline-2-carboxamide analogues as phosphodiesterase-iv (PDE-IV) inhibitors	Indian Pharmaceutical Association Convention	Manipal, Karnataka, India	17-18 March 2012
25	Muthu VS, Mahesh	Design, synthesis and	International	AIIMS New	21-23



	R, Jindal A.	pharmacological evaluation of novel Phosphodiesterases-4 inhibitors as potential anti-depressants	Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	Delhi, India.	February 2013
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26	Mahesh R, Bhatt S, Devadoss T, Jindal A.	Neuropharmacological effect of (4-benzylpiperazin-1-yl) (3-methoxyquinoxalin-2-yl) methanone (qcm-15), a potential 5-HT ₃ receptor antagonist on chronic unpredictable mild stress-induced changes in behavior and brain oxidative stress in mice	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi, India	21-23 February 2013
27	Mahesh R, Dhar AK, Jindal A Bhatt S.	2-(4-substitutedpiperazin-1-yl)-1,8-naphthyridine-3-carboxylic acids: novel 5-HT ₃ receptor antagonists as potential anxiolytics.	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi, India	21-23 February 2013
28	Mahesh R, Jindal A, Bhatt S.	Etazolate rescues behavioral deficits in chronic unpredictable stress models of depression by the modulation of HPA axis, BDNF signaling and antioxidant defence system: possible mechanism(s) of neuroprotection	International Conference on Recent Advances in Molecular Mechanisms of Neurological Disorders	AIIMS New Delhi, India.	21-23 February, 2013
29	Mahesh R, Mundra S, Mohammed A.,	Design and synthesis of falcipain-2 Inhibitor's as a potential Antimalarial Agents	Chemical Biophysics Symposium	Toronto, Canada	21-23 April, 2013
30	Mahesh R, Mundra S.	Design, Synthesis of Novel Antimalarial agents	Biological Therapeutics Symposium, University of Toronto	Toronto-Canada	2-3 May 2013
31	Mahesh R, Mundra S.	Fluorimetric assay for falcipain-2 activity using Victor multi-label counter	Biomedical Engineering & Science Technology (BEST) Symposium at St. Michael's Hospital	Toronto, Canada	13 June, 2013
32	Mundra S, Mahesh R	Design, Synthesis and careening of falcipain-2 inhibitors as novel anti-malarial agents	2nd Nirma Institute of Pharmacy International Conference, NIPICON	Ahmedabad, India	23-25 January, 2014
33	Gupta D, Mahesh R, Kurhe Y, Thangaraj D.	Antidepressant-like effects of EQC-34, a novel 5HT-3 receptor antagonist in neurobehavioral mouse model of depression	International Conference on Pharmacy and Pharmacology	London, UK	26-27 September, 2014



34	Kurhe Y, Mahesh R, Gupta D, Thangaraj D.	Antidepressive-like effect of a novel 5-HT ₃ receptor antagonist (4a) against depression co-morbid with obesity in mice subjected to chronic stress	Fens Forum of Neuroscience	Milan, Italy	5-9 July, 2014
35	Ashok Penta, Subhash Chander and S Murugesan	An <i>in-silico</i> virtual screening approach to identify HIV-1 non-nucleoside reverse transcriptase inhibitors	Indo-US conference on Molecular Modeling and Informatics in Drug Design	NIPER, Mohali India.	3-6 November, 2014
36	Ashok Penta, Subhash Chander and Sankaranarayanan Murugesan	<i>In-Silico</i> virtual screening and docking studies for the identification of novel inhibitors of HIV-1 Reverse Transcriptase	Indo-US conference on Molecular Modeling and Informatics in Drug Design	NIPER, S.A.S Nagar Mohali, Punjab, India.	3-6 November, 2014
37	Vasanthakumar S, Saha RN	Preparation and Characterization of Risperidone Microparticulate Drug Delivery System.	Tenth International Symposium on Advances in Technology and Business Potential on New Drug Delivery Systems, Controlled Release Society-Indian Chapter	Mumbai	17-18 February, 2010
38	Vasanthakumar S, Saha RN	Preparation and Characterization of Nanoparticles and Nanocapsules for the Selected Chemotherapeutic Agent Paclitaxel	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
39	Vasanthakumar S, Saha RN	Stability Indicating Validated Method for Acyclovir by RP-HPLC and their Applications in Evaluation Studies	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
40	Vasanthakumar S, Saha RN	Preparation and Characterization of Risperidone Particulate Drug Delivery Systems	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
41	Vasanthakumar S, Saha RN	Formulation and Evaluation of Immediate Release Tablets of Risperidone Using Superdisintegrant-Croscarmellose Sodium	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
42	Vibhu, Srinath Selladurai, S.Vasantha Kumar, R.N.Saha	Stability indicating validated method for acyclovir by RP-HPLC and their applications in evaluation studies	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
43	Emil Joseph., Vibhu Nagpal., Garima Balwani., R. N Saha	Validated UV-spectrophotometric methods for the estimation of olanzapine in bulk, formulations and dissolution studies	62 nd Indian Pharmaceutical Congress	Manipal	17-19 December, 2010
44	Vasanthakumar S, Saha RN	Advancements in Targeting Cancer Cells Using Nanoparticulate Drug Delivery Systems.	Keynote Address , IPA conference	Mumbai	4-7 July, 2011
45	Sunil K Dubey, S. Kumar, R.N. Saha	A New High Performance Liquid Chromatographic Method for	3rd IPA Convention	Indore	19-20 February,



		Quantification of Enalapril in Bulk and Formulations			2011
46	Emil Joseph., Vibhu Nagpal., Garima Balwani., R. N Saha	A new, sensitive and validated RP-HPLC method for estimation of olanzapine, an antipsychotic drug, in bulk and pharmaceutical dosage form	Contemporary Trends in Biological and Pharmaceutical Research	BITS Pilani	12-13 March, 2011
47	Vasanthakumar S, Saha RN	Design, Characterization and Evaluation of Nanoparticulate Drug Delivery System of Paclitaxel	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani	12-13 March, 2011
48	Gautham S, Vasanthakumar S, Saha RN	Development and Validation of Rapid and Simple UV-Spectrophometric Method for estimation of Milnacipran Hydrochloride in Bulk and Formulation	Contemporary Trends in Biological and Pharmaceutical Research,	BITS, Pilani	12-13 March, 2011
49	Emil Joseph., Vibhu Nagpal., Garima Balwani., Ranendra Narayan Saha	A Validated RP-HPLC Method for the Estimation of Olanzapine in Polymeric and Solid Lipid Nanoparticles	American Association of Pharmaceutical Scientists Annual Meeting and Exposition	Mc Cormick Place, Chicago, USA.	14-17 October, 2012
50	Sunil K Dubey, Jangala Hemanth, K.CH.Venkatesh, R.N.Saha and S.Pasha	Ultra-Performance Liquid Chromatography/Mass Spectrometric Method for the determination of venlafaxine and its metabolite in plasma: Application to pharmacokinetic study	19th International Mass Spectrometry Conference (IMSC2012)	Kyoto	15-21 September, 2012
51	G. Balwani, R. N. Saha.	Development and Validation of RP-HPLC Method for Estimation of Ganciclovir in Bulk and Formulations	7 th AAPS-NUS PharmSci@Asia Symposium	Singapore	6-7 October, 2012
52	G. Balwani, R. N. Saha.	Development and Validation of Spectrofluorimetric Method for Estimation of Ganciclovir in Bulk and Formulations	7 th AAPS-NUS PharmSci@Asia Symposium	Singapore	6-7 October, 2012
53	Sunil K Dubey, R.N.Saha, Jangala Hemanth	Stereoselective pharmacokinetics of ketorolac using enantioselective liquid chromatography and solid phase extraction.	Presented in 4th International Symposium on Drug Metabolism & Pharmacokinetics	NIPER Mohali	16-17 February, 2012
54	Gautam Singhvi, Shweta Sharma, Manish Goyal, Gautham Gampa, R.N. Saha	Design and characterization of hydrophilic and hydrophobic matrix based sustained release tablet of SNRI drug candidate.	3rd world congress on 'bioavailability and bioequivalence' pharmaceutical R&D summit	Hyderabad	26-28 March, 2012
55	Balwani G., Gupta A., Saha R N	Studies on Effect of Excipients on Release of Stavudine from Controlled Release Tablets Prepared by Melt Granulation	12 th CRSIC International Symposium	Mumbai	March, 2012
56	Sunil K Dubey, R.N.Saha, Amit Anand	A new enantioselective HPLC method for analysis of Ketorolac: Application to pharmacokinetic study	39 th International Symposium on High-Performance-Liquid-Phase Separations	Amsterdam, The Netherland	16-20 June, 2013



			and Related Techniques HPLC		
57	Vibhu Nagpal, Emil Joseph, Jaya Abraham, Garima Balwani, Satish Reddi, Ranendra Saha	Development of Controlled Release Liposome Formulation for Nasal Delivery of Candidate Hydrophilic CNS Active Drug	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	10-14 November, 2013

58	Vibhu Nagpal, Jaya Abraham, Emil Joseph, Garima Balwani, Ranendra Saha	Ultra Micro Quantification of Dopamine in Rat Plasma Using Solid Phase Extraction: A Simple and Rapid 3D View Method for Higher Recovery, Selectivity and Sensitivity with UFLC Diode Array Method.	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	10-14 November, 2013
59	Vibhu Nagpal, R.N.Saha	Studies on delivery of dopamine in rat brain via nasal administration through olfactory pathway bypassing blood brain barrier.	XX World Congress on Parkinson's Disease and Related Disorders	Geneva, Switzerland	8-11 December, 2013
60	G. Balwani, E. Joseph, S. Reddi, V. Nagpal, R. N. Saha	Studies on Effect of TPGS on Absorption of Ganciclovir in Rats	AAPS Annual Meeting and Exposition	Texas, USA,	10-14 November, 2013
61	Gautam Singhvi, Nilesh Yadav, Vipin Shukla, R.N. Saha	Study Of Formulation Variables Influencing The Drug Release From Hydrophilic Matrix Tablets Of Milnacipran	13th International symposium of Controlled Release Society Indian Chapter on Advances in Technology and Businespotential of new drug delivery systems	Mumbai.	22-23 January, 2013
62	Garima Balwani, Pooja Makhija, Ranendra N. Saha	Development of UV Spectrophotometric Method for Ganciclovir and its Application in Preformulation Studies and Estimation in Marketed and In-house Developed Formulations	65 th Indian Pharmaceutical Congress	Delhi NCR	22-23 December, 2013
63	Balwani G., Makhija P., Joseph E., Saha R N	Design and Optimization of Solid Lipid Nanoparticles for Oral Delivery of Ganciclovir	14th International Symposium of the Controlled Release Society-Indian Chapter (CRS-IC)	Mumbai	23-24 February, 2015
64	Emil Joseph., Vibhu Nagpal., Garima Balwani., Satish Reddi., and R N Saha	Preformulation solubility and distribution coefficient studies of Olanzapine in various buffers using inhouse developed UV-spectrophotometric method	Pharmceutica	Crowne Plaza, Dubai, UAE.	16-18 March, 2015
65	Garima Balwani, Emil Joseph, Pooja Makhija, Ranendra	Ganciclovir-loaded solid lipid nanoparticles prepared with TPGS as stabilizer: Formulation,	Pharmceutica	Crowne Plaza, Dubai, UAE.	16-18 March, 2015



	Narayan Saha	characterization and in vitro drug release			
66	Emil Joseph., Garima Balwani., Vibhu Nagpal., Satish Reddi., and R N Saha	QbD based design and development of surface modified polymeric nanoparticulate systems of antipsychotic drug for brain targeting	Pharmaceutica	Crowne Plaza, Dubai, UAE.	16-18 March, 2015
67	Priti Jain, Hemant R Jadhav	Gamma secretase as a target in the treatment of Alzheimers Disease	National Conference on Green and Sustainable Chemistry	BITS-Pilani	19-21 February, 2010
68	Jai Prakash, Vadiraj Kurdekar, Hemant R Jadhav	Synthesis of Mannich bases of 7-Hydroxy-4-Methyl Coumarin for their Antioxidant potential	National Conference on Green and Sustainable Chemistry	BITS-Pilani	19-21 February, 2010
69	Bhanu Priy, Priti Jain, Hemant R Jadhav	Aminoimidazoles as Potent and Selective Human β -Secretase(BACE1) In-hibitors: A 2D-QSAR Study	62 nd Indian Pharmaceutical Congress	Manipal	16-18 December, 2010
70	Mohit Singh, Priti Jain, Hemant R Jadhav	2-D QSAR study of novel pyrrollones and imidazolones as GABA _A receptor ac-tivity modulator	62 nd Indian Pharmaceutical Congress	Manipal	16-18 December, 2010
71	Rakesh Chowdary, Vadiraj Kurdekar, Hemant R. Jadhav	Antioxidant Potential of <i>Argemone maxicana</i>	62 nd Indian Pharmaceutical Congress	Manipal	16-18 December, 2010
72	Radhakrishnan Mahesh, Ankur Jindal, Vadiraj Kurdekar, Hemant Jadhav, Shvetank Bhatt, Baldev Kumar, Dilip Kumar Pandey,	Evaluation of Anti-oxidant, Analgesic and Anti-inflammatory activity of Methanolic Bark extract of <i>Atalantia monophylla</i>	43 rd Annual Conference of IPS & International Symposium on "Pharmacology & Translational Research	Hyderabad.	13-16 December, 2010
73	Naga Rajiv L, Priti Jain, Hemant R Jadhav.	2D QSAR of pyrrole-indoline-2-ones as aurora kinase inhibitors	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani,	12-13 March, 2011
74	Vadiraj Kurdekar and Hemant R. Jadhav	Study on selectivity of TACE inhibitors against MMP13 and TACE: By Docking and QSAR approach	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani,	12-13 March, 2011
75	Lavika Jain, Priti Jain, Hemant R. Jadhav	2D-QSAR Studies of 1-(4-(Phenoxymethyl) benzyl) Piperidine Derivatives as H3 Histaminic Receptor Antagonists	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani,	12-13 March, 2011
76	Aneesh Karkhanis, Priti Jain, Hemant R. Jadhav	2D QSAR of 4-alkylamino- [1, 7] naphthyridine-3- carbonitriles as selective TPL-2 kinase inhibitor	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani,	12-13 March, 2011
77	Christo Jose, Priti Jain, Hemant R Jadhav.	Hydroxyethyl amine compounds as BACE-I inhibitors: A 2D-QSAR study	Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani,	12-13 March, 2011



78	Ashar A. Faizee, Priti Jain, Hemant R. Jadhav	Aminohydantoin disubstituted derivatives as a potent and selective human β sec-retase (BACE1) inhibitors : A quantitative structure activity relationship	APTICON	Moga	7-9 October, 2011
79	Jigish J. Parmar, Priti Jain, Hemant R. Jadhav.	2D-QSAR study on the novel hydroxamates as TACE (TNF- α converting en-zyme) inhibitors	APTICON	Moga	7-9 October, 2011
80	Neha Tickoo, Priti Jain, Hemant R. Jadhav.	2D-Quantitative structural activity relationship (2D-QSAR) studies of Inhibitors of Trypanosomal Cysteine Proteases	APTICON	Moga	7-9 October, 2011
81	Anupama Devarajan, Priti Jain, Hemant R. Jadhav	2D-Quantitative structural activity relationship (2D-QSAR) studies of some new 3 of 5 4 β -anilino-4-O-demethyl-4-desoxy podophyllotoxin derivatives as potential anti-tumor agents	APTICON	Moga	7-9 October, 2011
82	Vadiraj Kurdekar and Hemant R. Jadhav	A New Python Script for QSAR study", Poster presented at 2 nd International conference on open source for computer-aided Translational medicine	International conference on open source for computer-aided Translational medicine	Chandigarh	22-25 February, 2012,
83	Priti Jain, Naga Rajiv L, Hemant R Jadhav	Synthesis and antibacterial profile of cyclized diazonium compounds	Oral Presentation at International conference on global trends in pure and applied chemical sciences	Udaipur	3-4 March, 2012
84	Satish N. Dighe, Vadiraj Kurdekar, Hemant R. Jadhav	Green chemical approach for N-tert-Butyloxycarbonylation of Amines	APTI 17 th Annual National Convention	Manipal College of Pharmaceutical Sciences, Manipal.	12-14 October, 2012
85	Swathi Avula, V. Pratyusha, Satish N. Dighe, Hemant R. Jadhav	Microwave assisted convenient method for the synthesis of formamidines using ZnCl ₂ as catalyst	APTI 17 th Annual National Convention	Manipal College of Pharmaceutical Sciences, Manipal.	12-14 October, 2012
86	Ramya Sandra, Ishu Agarwal, Satish N. Dighe, Hemant R. Jadhav	Effect of various Lewis acids and solvents on time and yield of Friedel - Craft acylation	APTI 17 th Annual National Convention	Manipal College of Pharmaceutical Sciences, Manipal.	12-14 October, 2012
87	Pratyusha I V., Swathi Avula, Satish N. Dighe, Hemant R. Jadhav	Zn & ammonium formate: A new mild reducing agent for the synthesis of amidine from amidoxime	APTI 17 th Annual National Convention	Manipal College of Pharmaceutical Sciences, Manipal.	12-14 October, 2012
88	Ishu Agarwal,	Simple & convenient method for the	APTI 17 th Annual	Manipal	12-14



	Ramya Sandra, Satish N. Dighe, Hemant R. Jadhav	synthesis of formamidines using ZnCl ₂ as a catalyst	National Convention	College of Pharmaceutical Sciences, Manipal	October, 2012
89	Hemant R. Jadhav	Computational Methods in Medicinal Chemistry'	Symposium on Recent Advances in Chemical Sciences	Pilani	25 March, 2012
90	Pankaj Wadhwa, Priti Jain, Hemant R Jadhav	Docking study of indole derivatives as flap endonuclease inhibitor	Recent advances in computational drug design	IISc Bangalore	16-17 September 2013.
91	Vadiraj Kurdekar and Hemant R. Jadhav	A case study with TACE enzyme	'International Conference on Biomolecular Forms and Functions	IISc Bangalore	8-11 January, 2013
92	Priti Jain, Hemant R Jadhav	Multi target directed ligand : An approach to treat Alzheimer's disease	International conference on psychology, autism and alzheimer's disease	San antonio, USA	30 September - 1 October, 2013
93	Hemant R. Jadhav	Emerging trends in extraction of herbals	Invited talk delivered at AKS University in National Seminar on "Emerging Trends & Applications of Herbal Technology	Satna	10-11t August 2013
94	Vadiraj D Kurdekar and Hemant R. Jadhav	Hit identification using molecular modelling approach: Case study of reversible PAD4 inhibitor	'Overcoming the Bottlenecks in Drug Discovery and Development'	RSC conference held at DSIN/Ranbaxy, Gurgaon	20 - 21 March 2014
95	Lipika Pandey, G. Mariappan, Deepak Kumar and S. Murugesan	Microwave Assisted Synthesis of Oxazolone Derivatives	Advances in Pure and Applied Chemistry	Dr. B. R. Ambedkar Centre for Biomedical Research, New Delhi, India.	28- 29 December, 2010
96	Santhosh, Prasanthi. N, Ganguly. S, K Kumar Sethy, S. Murugesan and Jyothi. V. S	Flexible Docking of N-Amino Imidazole Derivatives into the Non-Nucleoside Inhibitor Binding Site of HIV-1 Reverse Transcriptase	62 nd IPC	Manipal, Karnataka, India	17-19 December, 2010
97	S. Murugesan	Conference attended	Practical Applications of Modern Tools in Organic Synthesis and Purifications	IICT, Hyderabad, India.	21- 25 November, 2010
98	Ashok. P, Kakumanu Kishore Babu, S. Murugesan and S. Ganguly	Design and docking studies of some novel 2-Substituted Tetrahydro-β-carbolines as Human Immunodeficiency Virus type-1 Reverse Transcriptase Inhibitors	Antivirals for the Developing World, 10th Annual Symposium of International Consortium on Anti-	International Centre for Genetic Engineering & Biotechnology, New Delhi,	7-10 February, 2012



			Virals	India.	
99	Kakumanu Kishore Babu, S. Murugesan and S. Ganguly	Design and Docking Studies of some Novel H1N1 Neuraminidase Inhibitors	National Conference on Chemical Sciences in New Millennium	Pacific University, Udaipur, Rajasthan, India.	08 January, 2012
100	Ashok P, S. Murugesan and S. Ganguly	Design and Comparative Docking studies of novel 1-Phenyl-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acid analogs as Inhibitors of HIV-1 Reverse Transcriptase	World Conference on HIV and AIDS	Institute For Holistic Medical Sciences, Kottayam, India.	9-11 November, 2012
101	Mahesh R, Sudali MV, Murugesan S, Dhar AK, Mundra S, Jindal A	Design and docking study of 4-benzyl-3-oxo-3,4-dihydroquinoxaline-2-carboxamide analogues as phosphodiesterase-IV (PDE-IV) inhibitors	Indian Pharmaceutical Association (IPA) Convention	Manipal, Karnataka, India	17-18 March, 2012
102	Pandey, M.M., Raut, P., Jaipal, A., and Charde, S.Y.	Spectrophotometric and Spectrofluorometric Study for the Estimation of Felodipine in Bulk and Formulation	62 nd Indian Pharmaceutical Congress,	Manipal, India	17-19 December, 2010
103	Raut, P.P., Jaipal, A., Manish, K., and Charde, S.Y.	Design and Evaluation of pH Independent Sustained Release Tablet of Ondansetron Hydrochloride	10th International Symposium on Advances in Technology and Business Potential of New Drug Delivery System	Mumbai, India	17-18 February, 2010
104	Jaipal, A, Pandey, M.M., and Charde, S.Y.	Development and Evaluation of Buccal Mucoadhesive drug Delivery Systems of Amlodipine Besylate. 2010	10th International Symposium on Advances in Technology and Business Potential of NDDS	Mumbai, India	17-18 February, 2010
105	Pandey, M M., Ramakrishna, R., Singh, D., Raut, P., and C, S. Y.	Solubility Enhancement of Felodipine using Beta-cyclodextrin Inclusion Complexes	APTI -16th Annual National Convection	Moga, India	7-9 October, 2011
106	Pandey, M. M., Krishna Kumar, G., Khandelwal, R., Jaipal, A, and Charde S. Y.	Solubility Enhancement of Felodipine by Solid Dispersion Technique	APTI -16th Annual National Convection	Moga, India	7-9 October, 2011
107	Radhakrishanan, R., Raut, P.P., Jaipal, A., Pandey, M.M., and Charde, S.Y.	Development and Validation of UV-Spectrophotometric Methods for the Estimation of Ondansetron Hydrochloride in Bulk and Formulations	National Conference on Contemporary Trends in Biological and Pharmaceutical Research	BITS, Pilani, Rajasthan, India	7-9 October, 2011
108	Tyagi, V., Jaipal, A., Pandey, M.M., Raut, P. P., and Charde S.Y.	Formulation and Evaluation of Directly Compressed Modified Release Tablets of Ondansetron Hydrochloride	National Conference on Contemporary Trends in Biological and Pharmaceutical	BITS, Pilani, Rajasthan, India	12-13 March, 2011



			Research		
109	Pandey, M. M., Raut, P., Jaipal, A., and Charde, S.Y.	Development of a High Performance Liquid Chromatographic Method for the Estimation of Felodipine in Bulk and Formulation	5th International Conference on Clinical Pharmacology-Discovery, Development & Beyond	Mumbai, India	12-13 March, 2011
110	Pandey, M. M., Yadav Laxmiharika, T., Gajja, A., Malik, R., Kumar, A., Parwani, M., and Charde, S. Y.	UV-Visible Spectrophotometric Analysis of Felodipine in Bulk and Formulation	3rd World Congress on Bioavailability and Bioequivalence	Hyderabad, India	26-28 March, 2012
111	Pandey, M. M., Krishna Kumar, G., Ramakrishna, R., and Charde, S. Y.	Solubility Enhancement of Felodipine by Solid Dispersions with a Novel Polymeric Solubilizer Soluplus	3rd World Congress on Bioavailability and Bioequivalence	Hyderabad, India	26-28 March, 2012
112	Pandey, M. M., Reddy, P.C.H., Singh, D., and Charde, S. Y.	Dissolution Enhancement of Felodipine by Solid Dispersion Technique	3rd World Congress on Bioavailability and Bioequivalence	Hyderabad, India	26-28 March, 2012
113	Charde, S.Y., Raut, P.P., Desai A.A., Sonawane, S., and Gupta D.D.	Design of Modified Release Multi-Unit Particulate Delivery Systems of Amodiaquine Hydrochloride for Paediatrics	12 th International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems	Mumbai, India	9-10 February, 2012
114	Jaipal, A., Praveena, B., Pinki, P. and Charde S.Y.	Design and Development of Mucoadhesive Buccal Patches of Buspirone Hydrochloride	12 th International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems	Mumbai, India	9-10 February, 2012
115	Pandey, M. M., Jaipal, A., Malik, R., Kumar, A., and Charde S. Y.	Dissolution Rate Enhancement of Pioglitazone Hydrochloride by Solid Dispersions using Poloxamer 188	APTI 17 th Annual National Convention	Manipal, India	12-14 October, 2012
116	Pandey, M. M., Jaipal, A., Kumar, A., Malik, R., Parwani, M., and Charde S.Y.	Formulation and in vitro Evaluation of Buccal Tablets of Felodipine using Polycarbophil, a Mucoadhesive Polymer	APTI 17th Annual National Convention	Manipal, India	12-14 October, 2012
117	Jaipal, A., Pandey, M.M., Abhishek, A., Praveen, L., and Charde S.Y.	Design and Evaluation of Buccal Tablets of Buspirone HCl: Effect of Polycarbophil and Mannitol on Drug Release	APTI 17th Annual National Convention	Manipal, India	12-14 October, 2012
118	Jaipal, A., Pandey, M.M., Tarun, B., Shreya, C., Charde SY.	Design and Evaluation of Buccal Tablets of HPMC by Direct Compression Method	APTI 17 th Annual National Convention	Manipal, India	12-14 October, 2012



119	Jaipal, A., Pandey, M. M., Charde, S. Y., and Vinay, S.	Design and Evaluation of Buccal Tablets of Buspirone HCl: Effect of HPC and Mannitol on Drug Release	APTI 17 th Annual National Convention	Manipal, India	12-14 October, 2012
120	Pandey, M.M., Ashish, G., Jaipal, A. and Charde, S.Y.	Dissolution Rate Enhancement of Felodipine by Solid Dispersions using Novel Amphiphilic Polymer Soluplus®	40th Annual Meeting and Exposition of CRS	Honolulu, Hawaii, USA	21-24 July, 2013
121	Pandey, M.M., Jaipal, A., Goel, P., Kumar, L., and Charde, S.Y.	Estimation of Felodipine in Bulk and Formulations by High Performance Liquid Chromatographic Method using Florescence Detection	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	10-14 November, 2013
122	Jaipal, A., Pandey, M. M., Shailaja, P. and Charde, S. Y.	Design of Buccal Mucoadhesive Drug delivery Systems of Buspirone: Effect of HPMC and Mannitol on Drug Release and Mucoadhesion Behaviour using Factorial Design Approach	AAPS Annual Meeting and Exposition	San Antonio, Texas, USA	10-14 November, 2013

123	Raut, P.P., Charde, S.Y., Adhokshaja CSS, and Supekar A.P.	Modified Release Pellets for Stomach Site Specific Delivery of Levodopa and Carbidopa Combination	14 th International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems	Mumbai, India	23-24 February, 2015
124	Raut, P.P., and Charde, S.Y.	Design of Modified Release Multi Particulate Drug Delivery System for Antiparkinson's Drugs	5th International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems	Dubai, UAE	16-18 March, 2015
125	Raut, P.P., and Charde, S.Y.	Formulation and Optimization of Gastroretentive Delivery System for Levodopa and Carbidopa Combination Using Response Surface Methodology	AAPS-NUS 10th PharmSci@Asia Symposium,	Singapore	8-9 April, 2015
126	Ashok Penta, Subhash Chander and Sankaranarayanan Murugesan	Design and <i>In-Silico</i> study of novel 2,3,4,9-tetrahydro-1-phenyl-1H-pyrido[3,4-b]indole derivatives as Inhibitor of HIV-1 Reverse Transcriptase	World Conference on Infectious Diseases	Jayaa Charitable and Educational Trust, Tamil Nadu, India.	18-22 December, 2013
127	Subhash Chander, Ashok Penta and Sankaranarayanan Murugesan	<i>In-Silico</i> design and study of novel Benzopiperidines as HIV-1 Reverse Transcriptase Inhibitor	Recent Advances in Computational Drug Design	IISC, Bangalore, India.	16-17 September, 2013
128	P. Ashok, S. Chander, S. Murugesan, S. Ganguly, R. Balana-Fouce	Synthesis and Evaluation of 6,7-dimethoxy-1,2,3,4-Tetrahydroisoquinoline Analogs as Antileishmanial agents	14th Tetrahedron Symposium Challenges in Bioorganic and organic medicinal chemistry	Vienna, Austria	25-28 June, 2013



129	Ashok P, Subhash Chander, S. Ganguly, Rafael Balana-Fouce and S. Murugesan	Synthesis and Evaluation of β -carboline derivatives as Anti-Leishmanial agents	2 nd UK-India Medicinal Chemistry Conference	IICT, Hyderabad, India.	22-23 March, 2013
130	P. Ashok, S. Murugesan and S. Ganguly	Design and Docking studies of some novel 1-Phenyl-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acids as Inhibitors of Human Immunodeficiency Virus Type-1 Reverse Transcriptase	International Conference on Global Trends in Pure and Applied Chemical Sciences	Udaipur, India	3-4 March, 2012
131	Taliyan R, Sharma P L	Protective effect of FeTMPyP, a peroxynitrite catalyst, against STZ-induced neuropathic pain behavior in rats	Insight to the Evaluation of Natural Products with Special Ref. to Anti-Obesity Drugs	Sir Madanlal Institute of Pharmacy-Etawah, U.P, India.	22-23 September, 2012
132	Taliyan R	Effect of peroxynitrite catalyst (FeTMPyP) and morphine alone and in combination against STZ-induced neuropathic pain in rats	Recent Advance in Mol Mechanism of Neurological Disorders	AIIMS-New Delhi, India.	21-23 February, 2013
133	Taliyan R	Possible involvement of GSK-3 β and mPTP in attenuation of the cardioprotective effect of remote ischemic preconditioning in diabetic rat heart	Alternatives to Animal Experimentation in Drug Discovery	Sir Madanlal Institute of Pharmacy-Etawah, U.P., India.	17 February-2014
134	Taliyan R, Sharma S, Singh S	Lithium chloride, a GSK-3 β inhibitor, restores the cardioprotective effect of ischemic postconditioning in isolated diabetic rats heart	Recent Pharmacological Trends for shaping future of drug discovery and development	Maharishi Markandeshwar University, Ambala-Haryana, India.	16-18 October-2014
135	Taliyan R, Sharma S	Lithium chloride, a GSK β inhibitor attenuates insulin resistance induced cognitive impairment in mice	47th Annual Indian Pharmacological society, IPSCON	Guwahati, India.	28-30 December, 2014.
136	Taliyan R. Sharma S	Neuroprotective Effects of HDAC Inhibitor, Trichostatin A In Intracerebroventricular Streptozotocin Induced Cognitive Deficits In Rats	British Pharmacological Society-Pharmacology	London, U.K,	16-18 December-2014.
137	Sharma S, Taliyan R	Pharmacovigilance In India: Perspectives and Prospects	National Symposium	Sir Madanlal Institute of Pharmacy-Etawah, U.P	14 March-2015
138	Ramagiri S, Taliyan R	Mitochondrial KATP- Channel Role in Neuroprotective Effect of Remote limb Ischemic Pre conditioning against Cerebral Ischemia -reperfusion Injury	Molecular Pharmacology, Drug Discovery And Nanopharmaceuticals	Chitkara University, Patiala, Punjab, India.	27 -28 March 2015
139	Krishna Mohan Mishra, Sushma Kumari, Atish T. Paul	Phytopharmaceutical and Biological Investigations of Vyaghri Haritaki	Herbal Drug Research: Opportunities and	B.V. Patel PERD centre, Ahmedabad.	5-7 November 2014



			Challenges	India.	
140	S.N.C. Sridhar, S. Murugesan and Atish T. Paul	Computational approaches for Exploring the Natural Product based Pancreatic Lipase Inhibitors	International Symposium on Natural Products and Drug Discovery - Future Perspectives	Vienna Institute of Technology, Vienna, Austria	13-14 November 2014
141	Deepak Chitkara and Neeraj Kumar	Core-shell nanoparticles for delivery of hydrophilic drugs	International conference on polymeric biomaterials, bioengineering and biodiagnostics	New Delhi, India.	27-30 October, 2014
142	Anupama Mittal and Neeraj Kumar	A Novel Composite Graft Containing Antibacterial Agent Gentamicin For Full Thickness Wound Healing	International conference on polymeric biomaterials, bioengineering and biodiagnostics	New Delhi, India.	27-30 October, 2014
143	Archana Khosa, R. N. Saha	Development of a simple and economic UV method for estimation of temozolomide for preformulation studies	AAPS - NUS 10 th PharmSci@Asia Symposium	Singapore	8-9 April 2015
144	Mahaveer singh, Hemant R. Jadhav	2D QSAR Studies on Novel Amide Derivatives of Branched Aliphatic Carboxylic Acids with 4-Aminobenzenesulfonamide as Potent Antiepileptic Agents	CTBPR	BITS, Pilani, Pilani Campus, Rajasthan, India.	12 March, 2011
145	Mahaveer singh, Hemant R. Jadhav	2D QSAR Studies on 4-Phenoxy piperidines as Potent, Conformationally Restricted, Non-Imidazole Histamine H3 Antagonists	Indian Pharmaceutical Congress	Manipal, India.	17-19 December, 2010
146	Mahesh R, Gupta D.	Ondansetron, a 5HT3 receptor antagonist, reverses diabetes-induced depressive-like behavior: modulation of oxidative stress and neuronal damage in the brain	10 th PharmSci@Asia and Annual Pharmacy Awareness Symposium by AAPS - NUS	NUS, Singapore.	8-9 April, 2015

23. Details of patents and income generated:

#	Title	Inventor/s	Year	Application Number/Patent number	Country	Status	Income generated
1	PDE4 inhibitor compounds for treating anti-depressant and anxiolytic related disorders	R Mahesh Muthu Venkatesh S	15/05/2014	1290/DEL/2014	USA	Pending	-

24. Areas of consultancy and income generated:

#	Project Title	Principal Investigator	Agency	Sanction (Rs.) (Lakh)
1	Evaluation of Anti-Diabetic Foot Cream	Dr. R. P. Pareek	TTK LIG Ltd., Chennai	3.00



2	Optimization of extraction process of sennosides	Prof. R.N. Saha	SPIC, Alwar	2.50
3	Optimization of up-gradation process of extracted products	Prof. R.N. Saha	SPIC, Alwar	2.50
4	Development of stable formulation for selected combination drugs	Prof. R.N. Saha	IPCA Labs. Mumbai	10.00
5	Development of aqueous parental formulation of a selected drug	Prof. R.N. Saha	IPCA Labs. Mumbai	10.00
6	Verifying the structural evidence for presence of Sennosides	Prof. Hemant R. Jadhav	SPIC, Alwar	0.5
7	Pharmaceutical Application Studies of Polymers Manufactured by BASF	Prof. Shrikant Charde	BASF	2.00
8	Design of Nasal Drug Delivery Systems for CNS Targeting	Prof. R. N. Saha	Torrent	20.00
9	Studies of Carbopols Use for Controlled Release and Other Uses by Extrusion and Spheronization Techniques	Prof. R.N. Saha	Lubrizol, USA	12.00
10	A Clinical Validation Report of Vital track Telemedicine Solution	Prof. R P Pareek	Maestros Mediline Systems Limited, Mumbai	1.00
Total				63.50

25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad:

- ✓ Prof. R.N. Saha is Visiting Professor at Kathmandu University, Nepal.

26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify):

- ✓ Prof. R.P. Pareek, CME Incharge, Indian Medical Association, Jhunjhunu.
- ✓ Prof. R.P. Pareek is a member of Scientific Committee, Research Society for Study of Diabetes in India (RSSDI), Rajasthan Chapter.
- ✓ Prof. R.P. Pareek is a founder secretary, Jhunjhunu Branch, Association of Physicians of India (API), Rajasthan Chapter.
- ✓ Prof. R.P. Pareek is a Vice-Chairman (2014-15), Association of Physicians of India (API), Rajasthan Chapter.
- ✓ Prof. R. Mahesh is a member, Board of Studies, (Pharmacy), DIT University, Dehradun.
- ✓ Prof. R. Mahesh is a member- Selection Committee for JRF/SRF- CSIR.
- ✓ Dr. S. Murugesan is Chancellor's nominee member of court of Chaudhary Ranbir Singh University, Jind.
- ✓ Dr. S. Murugesan is editorial board member of Journal of Drug Design and Discovery, Journal of Pharmaceutical Chemistry and Acta Scientifica.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):

- ✓ Mr. Murali Pandey attended a FDP Workshop on Patents held at BITS Pilani, Pilani Campus.
- ✓ Mr. Murali Pandey attended a Workshop on "Tools and Techniques in Statistics and Simulation" held at BITS Pilani, Pilani Campus.



- ✓ Mr. Murali Pandey attended a Workshop on "Data Analytics and Using R for Statistical Analysis" held at BITS Pilani, Pilani Campus.
- ✓ Mr. Mahaveer Singh attended a course on Learning Methodologies in Pharmaceutical Chemistry: Medicinal and Analytical Chemistry at Panjab University, Chandigarh.
- ✓ The Institute has initiated a competitive Seed Grant Scheme, Research Initiation Grant scheme and additional competitive research grant for new faculty scheme. This has been done to promote in house research leading to innovative product or technology development, and /or to start research programs which would develop into creative ventures on their own, through external funding. Here are the details of the projects which are sponsored through these schemes by institute:

#	Project Title	Principal Investigator	Agency	Sanction (Rs.) (Lakh)
Ongoing Projects				
1	Design and characterization of enteric coated lipid nanoparticles for anti-HIV drug delivery	Dr. Anil Jindal	BITS Pilani	2.00
2	Nano-carriers for co-delivery of small molecules and oligonucleotides.	Dr. Deepak Chitkara	BITS Pilani	2.00
3	Bioanalytical Method Development and Validation of Racemic Drugs by Dried Blood Spot Technique and Its Application to Pharmacokinetic Studies	Dr. Sunil Kumar Dubey	BITS Pilani	2.00
4	Development and Evaluation of Lipo-polymeric Micelles For Drug Delivery	Dr. Anupama Mittal	BITS Pilani	2.00
5	Development of Nano-Carriers for Improved Drug Delivery	Dr. Deepak Chitkara	BITS Pilani	9.90
Completed Projects				
1	Effect of Esculetin on the development of type II diabetic nephropathy	Dr. Gaikwad Anil Bhanudas	BITS Pilani	2.00
2	Development of ecofriendly nonionic surfactants coupled ultrasonic extraction technology for conophylline- An antidiabetic lead molecule and its comparison with conventional extraction techniques	Dr. Atish T Paul	BITS Pilani	2.00
3	Possible mechanism of attenuation of the cardioprotective and neuroprotective effect of Ischemic preconditioning diabetic and hyperlipidemic rats	Dr. Rajeev Taliyan	BITS, Pilani	2.00
4	Design, Synthesis and Study of Novel Benzopiperidine analogs as HIV-1 Reverse Transcriptase Inhibitors	Dr. S. Murugesan	BITS, Pilani	2.00

28. Student projects:

- **Percentage of students who have done in-house projects including inter-departmental projects: 100%**
- **Percentage of students doing projects in collaboration with other universities /industry / institute: 100%.**



29. **Awards / recognitions received at the national and international level by:**

Faculty

- ✓ Prof. R.N. Saha awarded “Pharmacy Professional of the Year 2013” by Indian Association of Pharmaceutical Scientists and Technologists (IAPST).
- ✓ Prof. R.N. Saha received Shri B. K Birla & Shrimati Sarala Birla Chair Professorship in 2011.
- ✓ Prof. R.N. Saha awarded 'BEST PHARMACY TEACHER OF INDIA' by Association of Pharmaceutical Teachers of India (APTI).
- ✓ Prof. R.N. Saha received Award for technology development awarded by BITS, Pilani.
- ✓ Prof M. L. Khorana Memorial Prize for Best Publication Award in Pharmaceutical Analysis & Bioanalytical Methods Chemistry given in March 2012 by Indian Journal of Pharmaceutical Sciences, Mumbai: "Rapid and Sensitive Liquid Chromatographic Method for Determination of Paclitaxel from Parenteral Formulation and Nanoparticles", published in IJPS, 2010, 72 (4), 465-470. Authors: S Kollipara, G Bende, R.N. Saha.
- ✓ Best poster award was given for the poster entitled, "Protective effect of FeTMPyP, a peroxynitrite catalyst, against STZ-induced neuropathic pain behavior in rats" Authors: Rajeev Taliyan and PL Sharma presented during ICMR sponsored Conference: Insight to the Evaluation of Natural Products with Special Reference to Anti-Obesity Drug held during September 22-23, 2012 at Etawah, India.
- ✓ Dr. Rajeev Taliyan received first prize for poster at International Conference On “Molecular Pharmacology, Drug Discovery And Nanopharmaceuticals” (Mpddnp-2015), 27-28th march 2015, at Chitkara University, Patiala, Punjab.
- ✓ Prof. R. Mahesh received following awards for best conference papers and publications:
 - NIPICON International Conference: Best Poster (IInd Prize), 2014.
 - Pharmanext (AIPER): Best Poster, 2012.
 - Indian Pharmaceutical Association Convention: Poster Award (Second Prize), 2012.
 - Indian Pharmacological Society Convention: Best Poster (Neuropharmacology), 2011.
 - Indian Pharmacological Society International Convention : P C Dandiya Award, 2011.
 - Indian Pharmacological Society International Convention : Poster (top10), 2010.
 - Association of Pharmacy Teachers of India Conference : Best Paper, 2011.
 - Prof. Duggirala Visweswaram & Prof. Sreemantalu Satyanarayana Award (Pharmacology).
 - Association of Pharmacy Teachers of India Conference : Best Paper, 2012.
 - Prof. Duggirala Visweswaram & Prof. Sreemantalu Satyanarayana Award (Pharmacology).
 - Best Published Paper Award (Indian Pharmacology Society Conf. 2013) NN Dutta Prize (Best Published Paper in Indian Journal of Pharmacology).
 - Best Published Paper Award (Association of Pharmaceutical Teachers of India



Conference 2014).

- Prof. Duggirala Visweswaram & Prof. Sreemantalu Satyanarayana Award (Best published paper during the year-2013 in Indian Journal of Pharmaceutical Education and Research - Pharmacology).
- ✓ Dr. Sunil Kumar Dubey received travel award from International Mass Spectrometry society USA for attending 19th International Mass Spectrometry Conference in Kyoto Japan held from September 16-22, 2012.
- ✓ Dr. Sunil Kumar Dubey received Young Scientist award, 2011 by Pharma Helpline Society.
- ✓ Dr. Sunil Kumar Dubey received best poster presentation award in 3rd IPA Convention, Indore 19-20 February, 2011.
- ✓ Dr. Sunil Kumar Dubey received DST travel grant for attending 39th International Symposium on High-Performance-Liquid-Phase Separations and Related Techniques (HPLC2013), 16th -20th June 2013.
- ✓ Dr. Sunil Kumar Dubey received Dr. P.D. Sethi's Annual Award in Pharmaceutical Analysis, (Certificate of Merit) 2012.
- ✓ Dr. Sunil Kumar Dubey won IP Quiz competition conducted by IPR team of Aditya Birla group 2015.
- ✓ Prof R.P. Pareek was awarded 'Fellow of the Indian College of Physicians (FICP)'. The fellowship was conferred at the Convocation at 68th APICON – ICP Convocation held at Coimbatore.
- ✓ Prof R.P. Pareek was given 'Distinguished Senior Physician Award' for outstanding contribution in the field of medicine at the 24th Annual Conference of Association of Physicians of India, Rajasthan Chapter, at Bikaner.
- ✓ Mr. Jaipal received the travel grant from DST for attending 2013 AAPS Annual meeting and exposition, Texas, USA.
- ✓ Prof. R. P. Pareek was awarded with Ananya Chikitsak Award by Abhivyakti Sahityik Manch, Chirawa, Jhunjhunu on 22nd April 2012 for commendable service to the society in the field of Medicine.
- ✓ Mr. Murali Monohar Pandey received travel award from CSIR, India for attending 2012- AAPS Annual Meeting and Exposition held in Chicago, USA held from Oct. 14-18, 2012.

Doctoral / post doctoral fellows/Students

- ✓ Sir Ratan Tata Trust, Mumbai sanctions fellowships to meritorious students of Department.
- ✓ Mr. Yeshwant Kurhe received travel grant from ICMR, Govt of India, for presenting poster at 9th Federation of European Neuroscience Societies (FENS), Forum of Neuroscience, Milan, Italy, July 5-9, 2014.
- ✓ Mr. Yeshwant Kurhe received grant from International Brain Research Organization (IBRO), France to attend and present poster at IBRO/APRC Varanasi School (Advances in Neurobiology), Varanasi, India, Sept-5-20, 2015.
- ✓ Mr. S N C Sridhar selected as a participant in Novartis India BioCamp 2014.
- ✓ Mr. S N C Sridhar received the travel grant from DBT for attending International



Symposium in the 4th Expert Committee on Promotion and Popularization of Biotechnology (ECPBP) held on 10th October, 2014, Austria.

- ✓ Mr. Prashant Raut received Travel grant from DST to attend 2014 AAPS Annual Meeting and Exposition, San Diego, CA, 2014.
- ✓ Ms. Vibhu received the travel grant from DST for attending 2013 AAPS Annual meeting and exposition, Texas, USA.
- ✓ Ms. Vibhu received organizer's travel grant for attending XX World Congress on Parkinsons and Related Disorders 2013, Switzerland.
- ✓ Ms. Garima received the travel grant from DBT for attending 2013 AAPS Annual meeting and exposition, Texas, USA.
- ✓ Ms. Pallavi Singh awarded DST INSPIRE fellowship.
- ✓ Ms. Garima awarded DST INSPIRE fellowship.
- ✓ Mr. Ankur Jindal awarded CSIR SRF.
- ✓ Mr. Anuradha awarded DST INSPIRE fellowship.
- ✓ Mr. Emil awarded with MANF, UGC fellowship.
- ✓ Mr. Ashok P. awarded CSIR SRF.
- ✓ Mr. Vasanth Kumar was selected by BASF for 3 days Training Programme in Germany.
- ✓ Ms. Deepali Gupta received Young scientist and Best poster award from Pharma-next Conference, India, April 28-29, 2012.
- ✓ Ms. Deepali Gupta received ISN travel Award from International Society of Neurochemistry for 25th ISN-APSN Biennial Meeting in Cairns, Australia during August 23-27, 2015.
- ✓ Ms. Deepali Gupta received Department of Science and Technology, Government of India Travel Award for 15th International Conference on Pharmacy and Pharmacology, World Academy of Science Engineering and Technology during September 28-29, 2014.
- ✓ Mr. Sorabh Sharma received P.P. Suryakumari Gold medal Award at Indian Pharmacological Society-2014, Guwahati, Assam.
- ✓ Mr. Sorabh Sharma received a travel grant to attend 1st IBRO/APRC Chandigarh. Neuroscience School, University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh. 03-08 November, 2014.
- ✓ Mr. Sorabh Sharma received a Young Scientist Award in a National Symposium Sponsored by Indian Council of Medical Research held at Etawah, India 2015.
- ✓ Mr. Sorabh Sharma received a travel grant (USD 1500) by IBRO Regional grants to attend the 25th ISN-APSN Biennial Meeting in Cairns, Australia held on 23-27 august 2015.
- ✓ Mr. Sorabh Sharma received a travel grant to attend IBRO-APRC/ISN-APSN Joint Advanced School to be held in Daegu, Korea from 14 - 20 September, 2015.
- ✓ Mr. Emil received full international travel grant for young scientist, awarded by Department of Science & Technology, India, for attending American Association of Pharmaceutical Scientists (AAPS) Annual Conference, held at Chicago, Unites States of America (October 2012).
- ✓ Mr. Emil Awarded IPCA Industrial fellowship (2009 August to 2011 March).



- ✓ Mr. Ashok P received third prize in poster presentation entitled "Design and Comparative Docking studies of novel 1-Phenyl-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylic acid analogs as Inhibitors of HIV-1 Reverse Transcriptase" presented at World Conference on HIV and AIDS organized by Institute For Holistic Medical Sciences, Kottayam and Ayurveda-Und Venen-Klink, Austria. November 09-11th, 2012.
- ✓ Mr. Sourabh Mundra has gone to university of Toronoto under DBT sponsored Indo-Canadian joint research consortium for carrying out the part of his doctroal research work during September 2012 to August 2013.

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.:**

National Conference on Contemporary Trends in Biological and Pharmaceutical Research (CTBPR):

National Conference on Contemporary Trends in Biological and Pharmaceutical Research (CTBPR) 2011 was organized jointly with Biological Sciences Department during March 12-13, 2011. The basic objective of the conference was to touch upon the interdisciplinary nature of research work in pharmaceuticals and biologicals. Around 20 eminent scientists from academia, industry and research institutions delivered talk about contemporary trends in Biological and Pharmaceutical research. The conference attended by around 200 delegates and young scientists presented their research work during the conference.

Diamond Jubilee of Department of Pharmacy:

The Department of Pharmacy Celebrated its Diamond Jubilee during November 19-20, 2011. During the celebrations graduates of all the years came to Pilani for reunion. Around 270 alumni attended the celebrations with their family members making the event a grand success. Each one of the graduate voiced their commitment in taking the Department to newer heights. An academic session on "Global Opportunities and Challenges: Role of BITS Pharmacy Education" was organized wherein eminent speakers from industry, academia and research institutional presented their views. This was followed by a panel discussion to deliberate how the curriculum at BITS need to be revised so that, the graduates are better equipped to overcome the challenges. The one and half day reunion ended with formation of a core group that would work on industry linkages and branding of Department and getting eminent people to deliver lectures for the benefit of faculty and students.



31. Code of ethics of research followed by the Department:

The department follows the code of ethics specified by the Institute. The details are given in the SSR.

32. a) Student profile programme-wise:

Name of the Programme	Application received	Selected		Pass Percentage	
		Male	Female	Male	Female
On Campus					
B.Pharm	636439	123	54	100	100
M. Pharma. Pharmacy,		20	19	100	100
M. Pharma. Pharmaceutics		39	14	100	100
M. Pharma. Pharmaceutical Chemistry		15	16	100	100
PhD	Department is not maintaining this data.	22		-	
Off Campus					
M.S. and M Tech (Pharmaceutical Operations & Management)	Department is not maintaining this data.	207	15	100	100

33. Diversity of students:

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M Pharm (Pharmacy, Pharmaceutics and Pharmaceutical Chemistry)	1.96%	1.96%	96.07%	0
PhD	18.18%	0%	81.81%	0%

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

- ✓ Our UG studnets are successful in clearing the GRE, TOEFL, and GPAT like competitiev examinations, however, department is not mainting the exact numbers of these stundents.

35. Student progression :

Student progression	Percentage against enrolled
UG to PG	1.69%
PG to M.Phil.	Not Applicable
PG to Ph.D.	2.43%
Ph.D. to Post-Doctoral	Nil
Employed: → Campus selection → Other than campus recruitment Entrepreneurs	83.84%



36. Diversity of staff:

Percentage of faculty who are graduates (PhD)	
of the same university	29.41%
from other universities within the State	11.76%
from universities from other States	58.82%
from universities outside the country	0

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:

→ Four faculties awarded with PhD degree (Dr. Sunil, Dr. Shvetank, Dr. Gautham, Dr. Jaipal).

38. Present details of departmental infrastructural facilities with regard to:

a. **Library** : BITS Pilani houses a Central Library to provide to its students and faculty a chance to explore a world of knowledge in a conducive environment. By making accessible a rich collection of print and non-print, primary and secondary material in various disciplines, the Libraries support the academic as well as research needs of thousands of students and hundreds of teachers of the Institute. Central library housing a rich collection of text and reference books, journals, magazines, audio/videos, CD-ROMs, research reports, online databases, thesis and data analysis software, etc. in all areas and branches of study in all disciplines. Central library is having books [6231 printed and 2008 eBooks], subscribed international and national journals [20 printed and 362 e Journals] and 149 thesis related to Pharmacy discipline. In addition, to this, at department level also we have book shelves containing books related to history of pharmacy, natural products, pharmaceutical chemistry, pharmaceuticals and pharmacology.

b. **Internet facilities for staff and students:** A campus-wide gigabit network, which connects all the rooms of hostels, faculty houses, faculty chambers, laboratories and classrooms. Every faculty is provided with laptop / desktop for the period of 5 years for internet access, printing facility and common photocopying facility.

c. **Students' laboratories:**

#	Lab Name	Equipments Available
1	Pharmaceutics	Mechanical stirrer, Homogenizer, Ostwald viscometer, Stalagmometer, Digital balance, Stage and eyepiece micrometer, Dissolution Apparatus, Sieve sets, Weighing Balance
2	Pharmaceutical Chemistry	Hot plate with magnetic stirrer, Heating Mantles, Melting point apparatus, Weighing Balance, Hot air oven, Visualizing cabinet
3	Pharmaceutical Analysis	Karl Fischer Apparatus, Titration assembly, Gutzeit Apparatus, Paper chromatography Assembly, Electronic weighing balance
4	Pharmaceutical Biotechnology	Laminar Hood, CO ₂ Incubator, electronic weighing balance, SDS PAGE, Gel electrophoresis, Refrigerator, water bath
5	Machine Room	Tablet compression machine [Single punch and multi station (16 station)], Friabilator, Tablet disintegration, Dissolution apparatus, Fluidized bed dryer, rapid mixer granulator, table top centrifuge, mechanical sieve shaker, hot air oven, Coating pan, Electronic weighing balance



6	Pharmacognosy	Hot Air Oven, Pulveriser, Light Microscopes, Weighing Balance, pH meter, UV cabinet, Furnace
7	Pharmacology	Microscopes, Haemocytometer with micropipette, Sahils Haemocytometer, Sethoscope, Spymomanometer, neubauer chamber, Human Skeleton, Animal Simulator Softwares, Langendorff apparatus.

d. Research laboratories:

#	Lab Name	Equipments Available
1	Pharmaceutical Chemistry Research - I	Fume Hood, Refrigerator, Buchi Rotavapor with assembly, Yamato Rata vapor with assembly, Water chiller, Microwave oven, Hot air oven, Melting point apparatus, Flash chromatography, Weighing Balance, U V chamber, Vacuum oven, Vacuum pump, Parallel Synthesizer, Hot plate magnetic stirrer, Heating Mantles
2	Pharmaceutical Chemistry Research - II	Fume Hood, Refrigerator, Buchi Rotavapor with assembly, Microwave oven, Rotary vacuum evaporator, Catalytic Hydrogenation Apparatus, U V chamber, Hot air oven, Hot plate magnetic stirrer
3	Pharmacokinetics and Pharmacology (Housed in Central Animal Facility)	Two chamber automated organ bath, laser doppler, non invasive blood pressure recorder, RT-PCR, electroconvulsimeter, actophotometer, analgesiometer, light dark apparatus, rotarod surgical anesthesia machine, electrical cautery
4	Pharmaceutical Process Laboratory	Mini lab coater, Friability Test Apparatus, Bulk Density Apparatus, Hardness tester, Mini press, Granule Friabilator, Extruder Spheronizer, Spray Dryer , Wet Granulator, Rotary Flask Shaker, Multipurpose Processor, Orbital Shaking Incubator, Tray Dryer, Tablet coating machine
5	Product Evaluation Laboratory	Dissolution apparatus with fraction collector, Diffusion Cells, Rota evaporator, Moisture balance, High speed centrifuge, Sonicator, Magnetic stirrers
6	Advanced Drug Delivery Laboratory	LC MS/MS, Microplate reader
7	Analytical Research Laboratory	HPLC, HPTLC, DSC, UV Visible spectrophotometer, Brookefield Viscometer, Microplate reader, Malvern zetasizer
8	Central Analytical Lab	High Performance Liquid Chromatography, Gas C Chromatography, Ultra Violet spectrophotometer, Ultra Violet -Near InfraRed spectrophotometer, Lyophilizer, Digital Polarimeter, Infra Red spectrophotometer, Nuclear Magnetic Resonance Spectrophotometer, Flame photometer, Ultra centrifuge, Digital Scanning Colorimeter, Spectrofluorimeter, Elemental Anlayzer, Hot Air Oven, Gel Electrophoresis, Paper Electrophoresis, -20 Deep Freezer, Stability Chamber, Humidity Chamber

39. List of doctoral, post-doctoral students and Research Associates:

• From the host institution/university:

List of PhD Students			
1	Ms. Anuradha	12	Mr. S N C Sridhar
2	Mr. Arghya Kusum Dhar	13	Mr. Santosh Kumar
3	Mr. Deepali Gupta	14	Mr. Satish Reddi



4	Mr. Emil Joseph	15	Mr. Sorabh Sharma
5	Mr. Malek Vajir	16	Mr. Sourabh Mundra
6	Ms. Pallavi Singh	17	Mr. Subhash Saini
7	Mr. Pankaj Wadhwa	18	Mr. Sushil Kumar Yadav
8	Mr. Prashant Raut	19	Mr. Yeshwant Kurhe
9	Ms. R Sruthi	20	Mr. Almesh kadakol
10	Ms. Garima B	21	Mr. Muthu S
11	Mr. Ankur Kumar	22	Mr. Ashok P

- **From other institutions/universities:**

#	Name of the PhD Student	Organization
1	Mr. Kaushal Pathak	Torrent Research Centre
2	Ms. Jaya Abraham B	Torrent Research Centre
3	Mr. Kedar	Lubrizol India Pvt Ltd
4	Ms. Rashmi	Dr. Reddys Laboratory
5	Ms. Reena B	Godrej CP
6	Ms. Sakshi Sawant	Vergo Pharmaceuticals
7	Mr. Ranadeep B	Janssen Pharmaceuticals, Inc.
8	Dr. Ujjwal M Rao	Kohinoor Hospitals
9	Mr. Damarala Ravi KB	Dr. Reddys Laboratory

40. **Number of post graduate students getting financial assistance from the university:**

→ During the assessment period 99 M. Pharm students were supported financially by giving either 40% Fee Waiver or monthly stipend.

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.:**

Pharmacy Department at Birla Institute of Technology and Science, Pilani (BITS Pilani), Rajasthan established in the year 1950, is the second oldest pharmacy department in India. We continuously strive for the development of pharmacy education to fulfil the needs of society and pharmaceutical industry. Department is planning to introduce a graduate B.E in Pharmaceutical Engineering to fulfil the work needs of pharmaceutical industry. The program has a specially designed curriculum wherein the student would be given knowledge of aspects of pharmaceutical operations, process engineering, scale up and manufacturing process. It has courses on process calculations, energy management, process plant safety, thermodynamics, unit operations (heat, mass and fluid), process equipment design, production planning and control, formulations, industrial pharmacy, quality control, regulatory affairs, pharmaceutical process technology etc. to name a few. In this regard, department has taken valuable opinions from industry as well as academics experts through surveys as well as personal visits to some of the top leading pharmaceutical industries, on a periodic basis.



42. **Does the department obtain feedback from:**

i. **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Feedback from the faculty members are obtained on curriculum as well as teaching learning- evaluation in the regular staff meeting conducted at least once in a month. In addition, department is having a committee on academics (DCA), which is composed of senior faculty members. DCA meets to take the feedback from faculty on course, program and evaluation components and discusses the necessary course of action to improve the teaching learning evaluation and curriculum.

ii. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Generally feedback from the students on staff, curriculum and teaching-learning-evaluation will be collected centrally by Instruction Division of the Institute. At department level, we have constituted student faculty council for both B. Pharm and M. Pharm level. SFC is composed Head of the department as chairman, student representatives from each year and faculties as members. SFC will be revised for every semester. The purpose of SFC is to get feedback and understand the problems faced by students in the process of learning. SFC meets regularly to understand the student issues and takes appropriate remedial measures periodically. In addition, institute have the 24*7 feedback portal where students can give their feedback regarding characteristics of the instructor/course have been most valuable to students' learning and which characteristics of the instructor/course/classroom/teaching environment require improvement? which will also be visible to instructor for further improvement in achieving the learning outcome of the course.

iii. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Recently, department celebrated its Diamond Jubilee during November 19-20, 2011. During the celebrations, graduates of all the years came to Pilani for reunion. Around 270 alumni attended the celebrations with their family members making the event a grand success. It involved a panel discussion to deliberate how the curriculum at BITS need to revised so that the graduates are better equipped to overcome challenges. The one and half day reunion ended with formation of a core group that would work on industry linkages and branding of Department and getting eminent people to deliver lectures for benefit of faculty and students.

43. **List the distinguished alumni of the department (maximum 10):**

Alumni of Pharmacy Department are well placed in India as well as abroad in various pharmaceutical companies, government organizations like drug control, research scientist, laboratories, entrepreneur etc., and in several well-known academic institutions and



organizations.

S.No	List of Alumnus
1	Dr. R Jagdeesh Babu, CEO, Biophore Pharm.Ltd, India, Prashanth Nagar, Kukatpally, Hyderabad-500072, Email ID: jrangisetty@biophorellc.com
2	Dr. Sriram Krishnaswami, Associate Director in Clinical Pharmacology, Pfizer Global R&D based in Ann Arbor, MI, New York, USA. Email ID: Sriram.Krishnaswami@pfizer.com
3	Mr. Ajay Kumar, Director, Ranbaxy Lab. Ltd, Barotiwala, Distt. Solan -174103, Himachal Pradesh, Email ID: Ajaykumar1954@gmail.com
4	Mr. Ghose Debabrata, Deputy Director, West Bengal Drug Control,57/1-A Sarel Bose Road, Subhas Nager, Calcutta-700065 WB, Email ID: ghosedebabrata@yahoo.com
5	Mr.Sunil Bhargava, Executive Director, Cyber drug and Pharma Ltd. Rajouri Garden New Delhi-110027, Email ID: cyber@vsnl.com
6	Mr. P. N. Saraswat, Drugs Controller, Rajasthan, 4/107, Vidya Vihar nagar, Jaipur-302012, Email ID: pnsaraswat@yahoo.com
7	Dr. Subhas Vyas, Asst. Prof. of Medicine, University of Pittsburgh, Pittsburgh PA 15212-2582
8	Mr. Murali Raman, Vice President, Morningside Healthcare Limited, Chennai. Email ID: murali_pharma@yahoo.com
9	Mr.Narayanan Surendran, Ex-Director, Pfizer Global Research and Development, Department of Pharmaceutical Sciences, 2800 Plymouth Road, Ann Arbor, MI 48105, USA. e-mail: Narayan.Surendran@pfizer.com
10	Dr. Raman Venkataraman, Prof. Pharmaceutical Sci. and Pathology, University of Pittsburgh. Pittsburgh PA USA, 15261, Email ID: rv@pitt.edu ; Priya_narendra@rediffmail.com

44. Give details of student enrichment programmes (special lectures/workshops/seminar) involving external experts.:

Seminars and guest lectures are conducted to provide a platform for deliberation and knowledge sharing. Best industrial and academic professionals are brought to the campus to bring the practical and application practices from the actual working environment and give extra input to the students on the current topics as well as the topics which are relevant to their area of specialization. Several notable speakers were invited for the seminars in the department. Some of the representative speakers and the titles of their talks are given below:

- ✓ Dr. Ian A. Cliffe, Vice-president and Head (Chemistry) Daiichi Sankyo India Pharma Pvt. Ltd, Gurgaon delivered the memorial lecture on "Identifying lead compounds in early drug discovery".
- ✓ Dr. Anu Puri, National Cancer Institute at Frederick, National Institute of Health, Frederick, USA delivered a talk entitled, 'Lipid Based Nanotechnology Platforms for Drug Delivery'.
- ✓ Dr. Chandrashekhar Udata, Director, Clinical Pharmacology, Biotech Unit, Pfizer, USA, delivered a talk entitled "Introduction to Population PK-PD and its applications in Clinical drug development".
- ✓ Dr. Murali Raman, GM, Operations, Apex Laboratories Ltd, Chennai, delivered a talk entitled, "GMP and cGMP".
- ✓ Prof Saibal Mitra, Department of Physics, Astronomy and Material science, Missouri State University, USA, delivered a talk entitled "Towards development of micro and nano batteries".
- ✓ Prof. Gary Bowman, Northern Arizona University, USA, delivered a talk entitled "What



is quantum mechanics? A very brief guide for the perplexed”.

- ✓ Mr. Abby Abraham, Associate Director, ICON Clinical Research-India, delivered a popular talk in the department on “Clinical Research”.
- ✓ Mr. Samir Singh, Senior Manager, Corporate Legal Cell, Aditya Birla Management Corporation Pvt Ltd. delivered talk on 'IP in Pharmaceuticals'.
- ✓ Mr. Kaushal Pathak, Scientist, Torrent Research Centre, Ahmedabad delivered talk on 'Clinical Protocol Writing'.
- ✓ Dr. A. J. Pandian, Reader and Head, Vision Research Foundation, Sankara Nethralaya, Chennai delivered talk on 'Ocular drug delivery systems'.
- ✓ Dr. Kaustubh Tambwekar, General Product Development Manager, Janssen, Pharmaceutical Companies of Johnson and Johnson, Johnson and Johnson Ltd, Mumbai delivered talk on 'Compression force measurements in tableting'.
- ✓ Dr. Pavan Muttill, Asst Prof. at University of New Mexico, USA delivered talk on 'Pulmonary drug delivery systems'.
- ✓ Dr. Rajkumar Shirumalla, Associate Director, Discovery Biology, Daiichi India Sankyo Ltd, Gurgaon delivered talk on 'DMPK in discovery of pharmaceuticals'.
- ✓ Dr. Dipen B. Roy, Associate Professor, Department Public health, Toure College of Pharmacy, New York delivered talk on 'Pharmacy practice in USA'.
- ✓ Prof. Devendra S. Kalonia, Department of Pharmaceutical Sciences, University of Connecticut Storrs, USA delivered talk on 'Monoclonal antibody Biologicals'.
- ✓ Dr. Prashant L. Kole, Research Scientist, Biocon-BMS collaboration, Syngene Ltd. Bangalore delivered talk on 'Dry blood spot estimation in Pharmacokinetics'.
- ✓ Dr. Suresh Arya, Program Director, NIH, USA delivered talk on 'Anticancer drug development'.
- ✓ Prof. Laxmi Kotra, University of Toronto, Canada delivered talk on 'ODCase inhibitors as antimalarials'.
- ✓ Prof. S. K. Kulkarni, Director, Bombay College of Pharmacy delivered talk on 'Drug discovery and Pharmacology: Changing scenario'.
- ✓ Prof. Jyoti Paliwal, NIPER, Mohali delivered talk on 'Biopharmaceutics and Pharmacokinetic considerations in ADMET determination'.
- ✓ Dr. K. Sivakumar, Former President, TTK-LIG delivered talk on 'Bioprosthetics'.
- ✓ Dr. Jagadish Rangishetty, BioPhore LLC, USA delivered talk on 'Regulatory aspects in USA'.
- ✓ Dr. Girish Joshi, Torrent Pharmaceuticals Ltd. Ahmedabad delivered talk on 'Animal house and CPCSEA guidelines'.
- ✓ Dr. Sajeev Chandran, Lupin Pharmaceuticals, Pune delivered talk on 'Inactive ingredients in drug delivery'.
- ✓ Mr. Prashant G.J., Torrent Pharmaceuticals Ltd. Ahmedabad delivered talk on 'Metabolic disorders targetting'.
- ✓ Dr. Joga Rao Gobburu (US FDA Outstanding Achievement Award), School of Pharmacy, University of Maryland, Baltimore,
- ✓ Dr. Sunil Jambhekar, Professor, Pharmaceutical Sciences, LECOM Bradenton School of Pharmacy, USA



- ✓ Dr. Pradman K. Qasba, Volunteer Scientist, Structural Glycobiology Section, NCI, NIH, USA.

45. **List the teaching methods adopted by the faculty for different programmes:**

Department delivers curriculum using an innovative "blended approach" that includes development of programmes and courses based on industry and academics inputs, classroom teaching coupled with web based contents, application based pedagogy, continuous assessment, organized feedback from students and further improvisation of teaching techniques. Theory with practical application is the main focus on which the pedagogical approaches of department depends on. The teaching methods adopted by the department are very innovative including maximum practical exposure and are dynamic enough to motivate the students participate in them with full enthusiasm and enable higher retention of the course content, thus making the programmes overall more effective. Every teaching department has well defined objectives which collaboratively work towards a single goal of imparting quality education to the students and inculcating in them the desired skill set and knowledge required by the industry.

The department ensures that, the students are provided with state of the art infrastructure, technology and equipment required to carry on the learning process in a more synchronized manner. The teaching methods adopted are well in consonance with the industry needs and are updated on a regular basis and knowledge of the teachers are upgraded regularly to make them well versed with the latest industry trends so that they can impart knowledge of the latest trends and techniques to the students.

Classroom Teaching:

Some of the classroom teaching methods adopted to enhance the best practices and help students to derive the best of the learning from their programmes and courses are:

Lectures and Tutorials

- ✓ The lectures conducted for every course to infuse and develop in the students the analytical, conceptual, presentation, communication and application oriented skills. The class rooms are well equipped with modern teaching aids like multimedia projectors and computers.
- ✓ Tutorials give opportunities to every student to talk about material being taught, ask questions and discuss material with their classmates and a designated tutor in a smaller group.
- ✓ The students are free to ask any questions that crop up in their minds while listening to lectures and attending tutorials. The faculties make sure to answer these queries in the best way a student can understand.

Innovative and relevant Lab-work



- ✓ For boosting the creativity amongst the students, challenging experiments are designed. The students give presentation on experimental work followed by open house viva in which they have to explain the findings and interpretations.

Seminars and Guest Lectures:

- ✓ Seminars and guest lectures are conducted to provide a platform for deliberation and knowledge sharing. Best industrial and academic professionals are brought to the campus to bring the practical and application practices from the actual working environment and give extra input to the students on the current topics as well as the topics which are relevant to their area of specialization.

Slide Show

- ✓ The faculties use slide shows as teaching aids to employ visual mode for flow charts, diagrams, animations etc, for the better comprehension and retention.

Experiential Learning:

Experiential learning at department includes different types of activities, with one common goal- to immerse students in “hands-on” experience outside the classroom. Following are the experiential learning activities adopted at department.

Practice School I and Practice School II

- ✓ In this the students are deputed to work in an Industry related to their professional field and thus get trained in that organisation. They usually work on a project for the entire duration (PSI for 2months and PS II for 5 to 5.5 months).

Projects

- ✓ Projects are a crucial part of B Pharm and M Pharm programs. The projects (Study oriented projects, lab oriented projects, design projects, special projects, dissertation/thesis, mini thesis) are done by a students and are intended to be intensive, active learning projects, requiring significant effort in planning and implementation as well as preparation of a substantial final written work product.
- ✓ Students are made to choose a project and asked to conduct work depending on the project type course.
- ✓ The projects provide hands on learning experience to the students by enabling them by making them aware how to convert the theoretical knowledge to the practical one.

Web Based Learning

- ✓ A number of courses of department which are in collaboration with industry uses web based learning materials to augment the more traditional forms of course delivery. This is a very flexible method to allow the students to select when such study takes place and to adjust the pace of learning. Through WebEx facility the lectures are conducted for these courses.

Intensive Teaching Workshop (ITW):

All the newly joined faculties of the department has to participate in Intensive Teaching Workshop organized by the Institute. Organizing committee composed of senior faculties and Dean, Instructions Division. During workshop, organizing faculties will guide new faculties for effective teaching and good practices to be followed while teaching at BITS. During the assessment year 8 faculties attended the ITW.

Teaching Learning Centre (TLC):



The Institute has set up Teaching Learning Centre (TLC). It is involved in improving the overall teaching - learning environment at BITS Pilani and headed by Prof. R.R. Mishra. The Centre is carrying out research on innovative teaching pedagogy, collection of good practices of teaching learning from all over the world and disseminate among the faculty, conduct intensive teaching workshops and invite experts from India and abroad to deliver lectures on relevant topics.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Department ensures the learning outcome and program objectives through the continuous assessment component, mid semester and comprehensive examinations. Continuous assessment is a important and integral part of the course, where students will be evaluated throughout the semester by conducting quiz, tutorials and giving assignments, etc. Moreover, higher degree courses will also include two or more research oriented activities like literature survey, seminars/presentations, research summaries, design/development of process/product, experimental or quantitative analysis of products, design of experiments etc. Further every course will have the both closed book and open book component of evaluations. Open book component for B. Pharm students will be at least 20% and for M. Pharm students will be at least 40%. In addition, institute have the 24*7 feedback portal where students can give their feedback regarding characteristics of the instructor/course have been most valuable to students' learning and which characteristics of the instructor /course /classroom /teaching environment require improvement? which will also be visible to instructor for further improvement in achieving the learning outcome of the course. Moreover, at department level, we have constituted student faculty council for both B. Pharm and M. Pharm level. SFC is composed Head of the department as chairman, student representatives from each year and faculties as members. SFC will be revised for every semester. The purpose of SFC is to get feedback and understand the problems faced by students in the process of learning. SFC meets regularly to understand the student issues and takes appropriate remedial measures periodically. In addition to this, feedback from the students on staff, curriculum and teaching-learning- evaluation will be collected centrally by Instruction Division of the Institute at the end of semester for each course, which will also be circulated to concerned instructor for further improvement.

47. **Highlight the participation of students and faculty in extension activities:**

The Department Celebrated its Diamond Jubilee during November 19-20, 2011. During the celebrations graduates of all the years came to Pilani for reunion. Around 270 alumni attended the celebrations with their family members making the event a grand success. Each one of the graduate voiced their commitment in taking the Department to newer heights. An academic session on "Global Opportunities and Challenges: Role of BITS Pharmacy Education" was organized wherein eminent speakers from industry, academia and research institutional presented their views. This was followed by a panel discussion to deliberate how the curriculum at BITS need to be revised so that the graduates are better equipped to overcome challenges. The one and half day reunion ended with formation of a core group that would



work on industry linkages and branding of Department and getting eminent people to deliver lectures for benefit of faculty and students.

During APOGEE, a workforce of around 100 B. Pharmacy and M. Pharmacy students, working under the guidance of Head of the Department, Faculty members and Research Scholars, demonstrated their innovative ideas in various fields of pharmacy and engineering. The projects covered not just Pharmacy or Health Sciences but even other fields like communication & networking, mechanical engineering, software design, transportation and automation with fabricated working models. The ideas were best displayed with several animated presentations and posters useful for easy understanding of the theoretical concepts.

During APOGEE, Pharmaceutical Society had organized the following events:

Doper's quiz: An online quiz event open for all students. Around 200 students participated. This event comprised of questions related to Pharmacy as well as some general questions.

ESPOIR: A Health Business plan competition open for all (in teams of 2) and 50 teams participated out of which 10 teams were selected for final.

Exhibition of Non-Newtonian Fluid: Collaborating with the creative activities club, the students of Department of Pharmacy made and displayed a pool of Non-Newtonian fluid, during APOGEE, which was a major attraction.

Apart from this, the students of department of pharmacy also participated in various national level quiz competition organized by other universities and organizations.

The Pharmaceutical society also conducted PBQ, a Quizzing event open for all in the month of September which was taken by nearly 50 students. The Pharmaceutical Society organized farewell dinner twice during the year (in both semesters) for the graduating students as well as fresher's orientation party every year for the newly admitted students of the department.

The department is maintaining a medicinal plant garden where plants/herbs/trees of therapeutic value are cultivated including seasonal herbs, which are used for practical's. The faculty and students are also involved in organizing and conducting health care camps, periodically organized for illiterate people in villages surrounding Pilani.

The Pharmaceutical Society also published annual department magazine 'AUDEAMUS' in which articles that address the major issues, innovations and developments in the pharmaceutical sector in the past years were compiled.

In addition, department faculties are also contributing to Institute in different capacities. Some of them are listed here:

- Pro. R N Saha is working as Director, BITS Pilani, Dubai Campus since April 2014. Before this he worked as Deputy Director (Administration) and Dean, Sponsored



Research Consultancy Division of BITS Pilani, Pilani Campus.

- Prof. R Mahesh is currently working as Dean, Faculty Affairs Division, BITS Pilani. He is involved in faculty recruitments (tenured -on-campus, off campus; non-tenured-on-campus, off-campus) for the 3 campuses in India. He was also a nucleus member of Student Welfare Division for 15 years and involved in several developmental activities such as automation of student dues, issue of certificates, standardization of procedure for first degree reception, health club and student's activity centre (SAC) development, etc. Prof. Mahesh was also a Chief, Community Welfare and Societal Development Unit (CWSDU). He was involved in streamlining of house allotment policy and guidelines and made allotments transparent, in renovation of several quarters, Infant Care Centre (currently rechristened as Blossoms Kids Zone), Medical Centre and Medical Shop.
- Prof. R. P. Pareek is currently working as Medical Superintendent at Medical Center of BITS, Pilani.
- Prof. Hemant R Jadhav is currently working as Associate Dean, Academic Research Division, Pilani Campus since January 2014. Before this, he was also a nucleus member of Research and Consultancy Division from September 2005 to June 2012.
- Dr. Sunil Kumar Dubey is working as Warden of Vyas Bhawan since August 2015.
- Mr. Murali Pandey is working as nucleus member of Practice School Division, BITS Pilani and is a member Academic Counseling Cell BITS Pilani.

48. **Give details of “beyond syllabus scholarly activities” of the department:**

- ✓ Department celebrated its Diamond Jubilee during November 19-20,2011. During the celebrations, graduates of all the years came to Pilani for reunion. Around 270 alumni attended the celebrations with their family members making the event a grand success. It involved a panel discussion to deliberate how the curriculum at BITS need to revised so that the graduates are better equipped to overcome challenges. The one and half day reunion ended with formation of a core group that would work on industry linkages and branding of Department and getting eminent people to deliver lectures for benefit of faculty and students.
- ✓ Department was involved in arranging a health camp on 20th & 21st March 2013 which is being conducted by Medanta Hospital, Gurgaon. Where, a team of experts including cardiologists, neurologist and general Physicians visited BITS Pilani. In this camp, people above 35 years of age were enrolled for check up.

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details:**

- B. Pharm programme is approved by Pharmacy Council of India (PCI), Govt of India.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- ✓ Faculty of Department of Pharmacy have presented research based papers in several national and international conferences.
- ✓ Contribution has been made in the application of analytical tools, specifically in the



development of new analytical methods for drugs and in the development of novel drug delivery system.

- ✓ Contribution has been made for formulating sustained release formulation and granted Indian patent on 'Stable Controlled Release Pharmaceutical Composition Comprising Aceclofenac'.
- ✓ One controlled release product is commercialized by IPCA Laboratories Ltd. Mumbai' (Zerodol CR) by Pharmacy Department.
- ✓ Transferred five formulation technologies to Pharmaceutical Industries on Controlled Release Products of Selected Drugs, Oral Stable Formulation of Combination Drugs and in other areas.
- ✓ Significant contribution is made in providing improved health care through implementation of Pharmaceutical care plan.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

STRENGTH:

- ✓ One of the oldest pharmacy school in India established in the year 1950 and has large alumni base
- ✓ Proven research capabilities
- ✓ Competent, dedicated, young faculty members
- ✓ Distinct and unique curriculum

WEAKNESS:

- ✓ Due to greater recognition of Institute as an Engineering Institute, students are less inclined to join Pharmacy as First degree
- ✓ It is difficult to get qualified technical assistant for labs
- ✓ Delay in services of lab equipments and supplies due to remoteness

OPPORTUNITIES:

- ✓ Industry projects. Already we have industry projects and have delivered on completed projects (Discussions are on with few industries through PS & Off-Campus collaborative Institutions and personal contact basis)
- ✓ New Institutional policies such as University immersion and Industry immersion schemes
- ✓ The need of industry for short term training and workshops for Industry personnel

Challenges:

- ✓ Increasing cost of operations
- ✓ Lower fees in most of the other Institutes
- ✓ Faculty attrition due to geographical location and Campus life facilities

52. **Future plans of the department.**

- ✓ Rediscover pharmacy education to make it sustainable and cost-effective
- ✓ Offer new degree programmes to attract bright students (BE in Pharmaceutical



Science and Technology)

- ✓ Recruitment of faculty members at senior level
- ✓ To get more industrial and Government funding support in the identified research areas

53. **Any other information regarding your department which you would like to include:**

Department of Pharmacy gives award to best B. Pharm and M. Pharm graduate, every year. Moreover, department is also in process to start awarding a best PhD thesis award. Recently, Prof. B.M. Mithal Memorial Lecture was held on 14th Feb. 2015 at BITS Pilani, Pilani Campus. As a mark of respect to the great teacher, educationist, administrator and philosopher all modelled in one, the Pharmacy Department of BITS Pilani, Pilani Campus, had initiated an annual memorial lecture in his name since 2001. The lecture was jointly organised by Department of Pharmacy, BITS Pilani and Prof. B.M. Mithal Endowment Trust, Pilani.

In this grand event, "B.M. Mithal Memorial Gold Medal" and "CNVHB Gupta Memorial Gold Medal" were given to those B. Pharm and M. Pharm students respectively who showed exceptional performance in academics, extracurricular and departmental activities. The event was launched by worshipping the Goddess of wisdom, Saraswati. Prof. R. Mahesh welcomed the audience and spoke about Prof. B.M. Mithal. Prof. G. Raghurama addressed the gathering and shared his experiences with Prof. Mithal. Prof. Hemant Jadhav introduced the speaker Dr. Ian A. Cliffe, Vice-president and Head (Chemistry) Daiichi Sankyo India Pharma Pvt. Ltd, Gurgaon. Dr. Cliffe delivered the memorial lecture on "Identifying lead compounds in early drug discovery".

Prof. G. Raghurama (Ex-Director) and Dr. Ian A. Cliffe honoured the students with gold medal. The best B. Pharm graduate for the award of Prof. B.M. Mithal Memorial Gold Medal for the session 2011-2012, 2012-2013 and 2013-2014 were Ms. Cheruvu Amulya, Mr. Sanjeev Agarwal, Mr. Shaurya Chanana respectively. The best M. Pharm graduate for the award of CNVHB Gupta Memorial Gold Medal for the session 2011-2012, 2012-2013 and 2013-2014 were Mr. Atul Gupta, Ms. Valavalkar Vidula Vinayak, Ms. Parmar Niyatiben Jayantibhai respectively. The event was concluded by vote of thanks by Dr. S. Murugesan, Head of Department.

Faculties of department are collaborating with national and international research groups for carrying out their research work. Some of them are listed here:

- ✓ Prof. R.N. Saha is Visiting Professor at Kathmandu University, Nepal.
- ✓ Prof. R.N. Saha also visited Pokhara Univ, Pokhara, Nepal for possible collaboration.
- ✓ Dr. Shrikant Y. Charde visited University of Minnesota, USA from 25 May to 14 July 2013 under University (Abroad) Immersion Scheme. He also initiated collaboration and it will grow in future.
- ✓ Collaboration with Dr. Jan Balzarini, Rega Institute for Medical Research, Leuven, Belgium. for the screening of anti-Viral activity of the synthesized NCE's.
- ✓ Collaboration with Dr. Rafael Balaña Fouce, University of Leon, Spain-24071, for the



screening of anti-Leishmanial activity of the synthesized NCE's.

- ✓ Collaboration with Dr. Scott Franzblau, University of Illinois at Chicago, Illinois 60621-7231, USA. for the screening of anti-TB activity of the synthesized NCE's.
- ✓ Collaboration with Prof. Baojie Wan, Institute for Tuberculosis Research, MC-964 College of Pharmacy, University of Illinois at Chicago, Illinois 60621-7231, USA. for the screening of anti-TB activity of the synthesized NCE's.
- ✓ Collaboration with Terry K. Smith, The University, St. Andrews, Fife Scotland. KY16 9ST. UK. for the screening of anti-Leishmanial activity of the synthesized NCE's.
- ✓ Collaboration with Dr. Yong-Tang Zheng, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, Yunnan 650223. P.R. China. for the screening of anti-HIV activity of the synthesized NCE's.
- ✓ Collaboration with Dr. Larry Ming C. Chow, The Hong Kong Polytechnic University, Hung Hom, Hong Kong. for the screening of anti-Leishmanial activity of the synthesized NCE's.

In addition, several faculty members and research scholars have attended various national and international conferences and also have delivered invited talks. Some of them are listed here:

- ✓ Dr. Shrikant Y. Charde visited University of Minnesota, USA from 25 May to 14 July 2013 under University (Abroad) Immersion Scheme.
- ✓ Prof. RN Saha visited and delivered an invited talk at National Cancer Institute (NIH), Frederick, USA on "Targeting Through Selected Distribution".
- ✓ Prof. RN Saha visited and delivered invited talk at University of Toronto, Toronto, Canada on "Studies of Nanoparticulate Drug Delivery Systems for Selected Anticancer Drugs"
- ✓ Prof. RN Saha visited and delivered invited talk at University of Rhode Island USA on "New Vision and New Opportunities".
- ✓ Dr. Sunil Kumar Dubey delivered an invited talk entitled as "Recent Advances in Liquid Chromatography Mass Spectrometry and Its Application in Determination of Pathogens " at MNIT Allahabad, 10-14th January 2015.
- ✓ Dr. Sunil Kumar Dubey chaired a Session Chair "Multiscale Analysis: Pharmacokinetics/dynamics of Amyloid Modulation Meeting: Strategy Formulation Meeting of the Information Technology Research Academy", Government of India, 15-17th January 2015.
- ✓ Prof. R N Saha delivered a talk on Enhanced And Targeted Delivery Through Modified Distribution And Pharmacokinetic Characters For Enhanced Therapeutic Efficacy in 2nd Pharm. Tech. IAPST International Conference 2014 "New Insights into Diseases and Recent Therapeutic Approaches" at Jadavpur University, on 17-18th January 2014.
- ✓ Prof. R N Saha delivered a talk on Science Study: Great Opportunity for success in life and to be an Achiever in DST Sponsored INSPIRE Workshop for school children at Sangrur, Punjab.



- ✓ Dr. Atish T Paul delivered a talk on Recent developments in herbal drug analysis at Herbal Drug Research: Opportunities and Challenges organised by B. V. Patel Pharmaceutical Education & Research Development (PERD) Centre, Ahmedabad, Gujarat on 5-7th November-2014
- ✓ Dr. Sunil Kumar Dubey delivered a talk on Enantioselective Pharmacokinetics of Racemic Drugs: A Regulatory Perspective at Quality Improvement Programme organised by Department of Pharmacy, BIT Mesra, Ranchi on November 07 - 20, 2014
- ✓ Dr. Sunil Kumar Dubey delivered a talk on IPR in Pharmaceuticals at Quality Improvement Programme organised by Department of Pharmacy, BIT Mesra, Ranchi November 07 - 20, 2014
- ✓ Dr. Rajeev Taliyan delivered a talk on Is pharmacy a profession or a trade? Regional Science Congress-2014, Navodaya Vidyalaya Samiti, Kajra, Rajasthan, Nov-13, 2014
- ✓ Prof. R P Pareek delivered a talk on 'Effective Utilization of Web search Engines: An Approach for Medical Practitioners', at 68th Annual Conference of Association of Physicians of India (API), 30 Jan.2013- Feb.2013, held at Codissia Trade Fair Complex, Coimbatore, India
- ✓ Prof. R P Pareek delivered a talk on 'Community & Individual Health: Empowering Women through ICT' at International Conference on Empowering Women in Developing Countries through Information and Communication Technologies Organised by Centre For Women Studies, Dept. of Humanities & Social Sciences Jaypee University of Information Technology-Waknaghat, Solan & Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi in collaboration with IWID & READ-India at JUIT, Waknaghat, Solan, Himachal Pradesh, India ,1-3 June 2013
- ✓ Prof. RN Saha visited Kathmandu University, Nepal for 10 days as Visiting Professor, where he delivered 5 lectures.
- ✓ Prof. R N Saha delivered a talk on 'Advancements in Targeting Cancer Cells Using Nanoparticulate Drug Delivery Systems' at Indian Pharmaceutical Association (IPA) conference, Mumbai, 9th Feb 2011.
- ✓ Prof. R N Saha delivered a talk on 'Advances in ocular drug delivery systems and opportunities further' at International conference on Drug Delivery, PSG College of Pharmacy, Coimbatore, 21-22 January 2011.
- ✓ Prof. R N Saha delivered a talk on 'Novel Drug Delivery Systems: Challenges and Opportunities' at IPA Convention, Indore, 19-20 February 2011.
- ✓ Prof. R N Saha delivered a talk on 'Importance of Industry University linkages for better Pharmacy Education' Current Trends in Bio and Pharmacy Research, BITS, Pilani, 13-14th March 2011.
- ✓ Prof. R N Saha delivered a talk on 'Drug Development: A Scientific Process and Role of Pharmacokinetics' National Conference on Recent Trends in Drug Design and delivery, Gupta College of Pharmacy, Asansol, WB, 24th September 2011.
- ✓ Prof. R N Saha delivered a talk on 'Application of PK-PD Modeling and Simulation to aid early development', International Drug Information Association Annual Conference, Mumbai, 17th October 2011.

